Clarion

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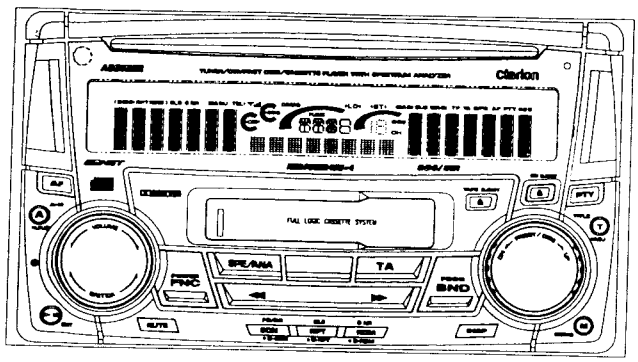
Service Manual

CeNET



W-DIN RDS-EON FM/MW/LW CD/Cassette Combination With MD/CD Changer/TV/DAB Control

Model **ADZ628R**

(PE-2496E-A)

■SPECIFICATIONS

Radio section

Tuning system:	PLL synthesizer tuner
Receiving frequencies:	FM 87.5 to 108MHz (0.05MHz steps) MW 531 to 1602kHz (9kHz steps) LW 153 to 279kHz (3kHz steps)

CD Player section

System:	Compact disc digital audio system
Frequency response:	10Hz to 20kHz(±1dB)
Signal to noise ratio:	100dB(1kHz) IHF-A
Dynamic range:	95dB(1kHz)
Distortion:	0.01%

Tape deck section

Cassette type:	Compact audio cassette
Wow & flutter:	0.06%(WRMS)
Frequency response:	30Hz to 20kHz(Metal)
Signal to noise ratio:	58dB(Dobly B NR off,Metal) 67dB(Dobly B NR on,Metal)

Audio section

Maximum power output:	45W × 4
Continuous average power output:	14W × 4(4 Ω, 20Hz to 20kHz,1%THD)
Bass control action:	±15dB(30Hz)
Treble control action:	±10dB(10kHz)
Line output level:	1.8V(CD 1kHz)

General

Power supply voltage:	14.4V DC (10.8 to 15.6V allowable), negative ground
Current consumption:	Less than 15A
Speaker impedance:	4 Ω(4 Ω to 8 Ω allowable)
Weight:	Source unit 2.6kg Remote control unit 30g (including battery)
Dimensions(mm):	Main unit 178(W) × 100(H) × 155(D) Remote control unit 44(W) × 110(H) × 27(D)

■NOTE

※We cannot supply PWB with component parts in principle. When a circuit on PWB has failure, please repair it by component parts base. Parts which are not mentioned in service manual are not supplied.

※Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

※"DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

※Specifications and design are subject to change without notice for further improvement.

■COMPONENTS

PE-2496E-A

Main unit	————	1
Remote control unit	RCB-130-300	1
Battery(SUM-3)	————	2
Finisher	383-0591-00	1
Extension lead	854-6358-50	1
Part's bag	————	
Spacer	340-1581-00	8
Double face	347-3913-20	2
Screw	714-5008-41	8
Screw	716-0496-01	8

■FEATURES

1. RDS-Pro Receiver with Controller for MD and CD Changer / DSP / TV and DAB Tuner
2. CD-Deck with 1-Bit D/A and Full Logic Cassette Deck with Dolby© B Noise Reduction
3. High Power 4×45W Max. / 2-Channel RCA Line Level Output
4. CATS Code Anti-Theft Protection

■To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.
   The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them.
   The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.
2. Place the parts and wiring back in their original positions after replacement or re-wiring.
   For proper circuit construction, use of insulationtubes, bonding, gaps to PWB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection.
   If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.
3. Check for safety after repair.
   Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots.
   If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
4. Caution in removal and making wiring connection to the parts for the automobile.
   Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.
5. Cautions regarding chips.
   Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.
6. Cautions in handing flexible PWB
   Before working with a soldering iron, make sure that the iron tip temperature is around 270℃. Take care not to apply the iron tip repeatedly (more than three times) to the same patterns. Also take care not to apply the tip with force.
7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.
8. Cautions in checking that the optical pickup lights up.
   The laser is focused on the disc reflection surface through the lens of the optical pickup. When checking that the laser optical diode lights up, keep your eyes more than 30cms away from the lens. Prolonged viewing of the laser within 30cms may damage your eyesight.
9. Cautions in handing the optical pickup
   The laser diode of the optical pickup can be damaged by electrostatic charge caused by your clothes and body. Make sure to avoid electrostatic charges on your clothes or body, or discharge static electricity before handling the optical pickup.

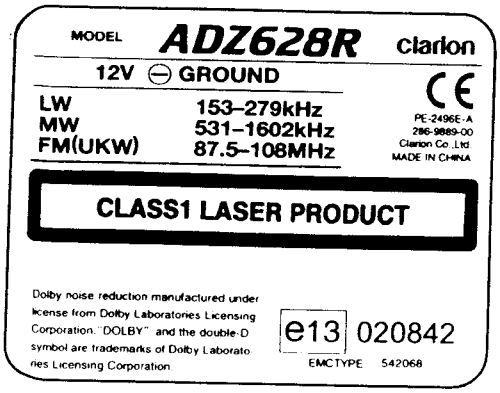
9-1. Laser diode
   The laser diode terminals are shorted for transportation in order to prevent electrostatic damage. After replacement, open the shorted circuit. When removing the pickup from the mechanism, short the terminals by soldering them to prevent this damage.

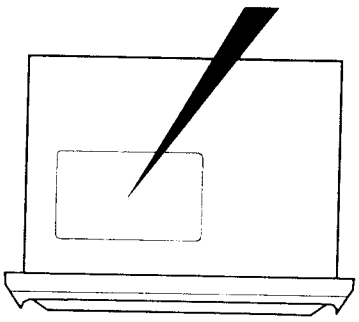
9-2. Actuator
   The actuator has a powerful magnetic circuit. If a magnetic material is put close to it, its characteristics will change. Ensure that no foreign substances enter through the ventilation slots in the cover.

9-3. Cleaning the lens
   Dust on the optical lens affects performance. To clean the lens, apply a small amount of isopropolalcohol to lens paper and wipe the lens gently.

■ CAUTIONS

This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUST". To use this model properly, read this Owner's Manual care fully and keep this manual for your future reference. In case of any trouble with this player, please contact your nearest "AUTHORIZED service station". To prevent direct exposure to the laser beam, do not try to open the enclosure.

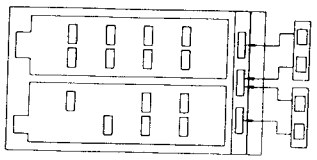




Bottom view of Main Unit

■ NOTES OF ISO CONNECTOR

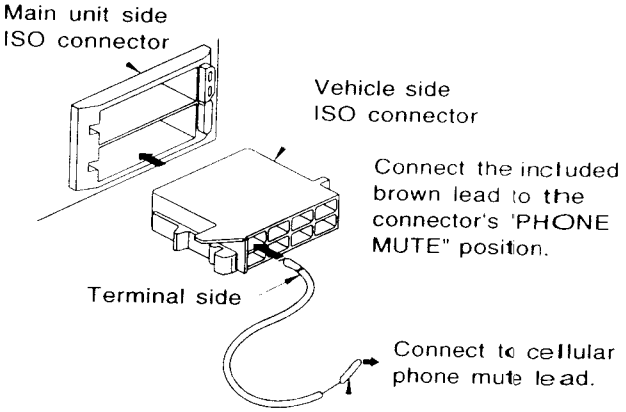
1. For VW and Audi vehicles, change the position of fuse installation as shown on the diagram. (Figure 1)



Main unit side
ISO connector

Figure 1

2. The lead include with the unit must be connected to the specified position of the vehicle's ISO connector in order to use the "triggered audio mute for cellular telephones" function. (Figure 2)


Main unit side
ISO connector
Vehicle side
ISO connector
Connect the included brown lead to the connector's "PHONE MUTE" position.
Terminal side
Connect to cellular phone mute lead.

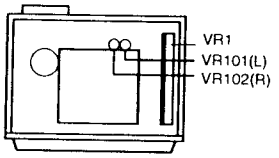
Fasten using insulating tape, etc., to prevent short-circuits at the connection.

Figure 2

■ ADJUSTMENT

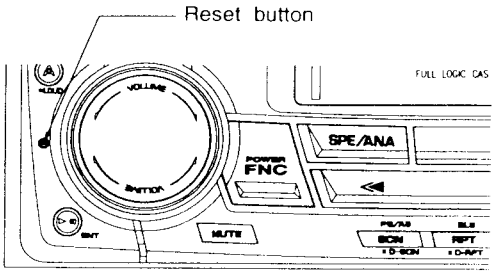
Item	Procedure	Measuring instrument
S-meter	1. Input the 98.1MHz/30dB μ (400Hz-MOD 30%) signal. 2. Turn on the power switch. And press the AF button and CH6 button at the same time. (TEST MODE) 3. Adjust the reading of LCD indicator to [30----00] (3.0V ± 0.2V) by VR1.	SG
Dolby level	1. Insert a Dolby level test tape (400Hz-200nWb/m), connect the AC-volt meter to TP101(L)/TP102(R). 2. Adjust VR101(L) and VR102(R) to obtain an output of 388mV+1.5/—0.5dB. (Dolby switch:OFF)	AC-voltmeter Dolby level tape
Azimuth adjustment	1. Playback a azimuth test tape (10KHz,— 10VU) and turn each azimuth-adjusting screw to make each FOW & REV Maximum. 2. After adjustment, make adhesion with bond.	Azimuth test tape Milli-volt meter
Tape speed	1. Playback a Wow & flutter test tape (3KHz,— 10VU) and connect the frequency counter to TP101 (L) or TP102 (R). 2. Adjust Speed VR of the motor to obtain an output of TP101 (L), TP102 (R) is 3000Hz ± 45Hz.	Wow & flutter test tape Frequency counter

Adjustment point



Top side of main unit

■ TROUBLESHOOTING

	Problem	Cause	Measure
General	Power dose not turn on. (No sound is produced.)	Fuse is blown.	Replace with a fuse of the same amperage.
	No sound output when operating the unit with amplifiers or power antenna attached.	Power antenna lead is shorted to ground or excessive current is required for remote-on the amplifiers or power antenna.	1.Turn the unit off. 2.Remove all wires attached to the power antenna lead. Check each wire for a possible short to ground using an ohm meter. 3.Turn the unit back on. 4.Reconnect each amplifier remote wire to the power antenna lead one by one. If the amplifiers turn off before all wires are attached, use an external relay to provide remote-on voltage (excessive current required).
	Nothing happens when buttons are pressed. Display is not accurate.	The microprocessor has malfunctioned due to noise, etc.	Press the reset button with a thin rod. 
CD	Compact disc cannot be loaded.	Another compact disc is already loaded.	Eject the compact disc before loading the new one.
	Sound skips or is noisy.	Compact disc is dirty.	Clean the compact disc with a soft cloth.
		Compact disc is heavily scratched or warped.	Replace with a compact disc with no scratches.
	Sound is bad directly after power is turned on.	Water droplets may form on the internal lens when the car is parked in a humid place.	Let dry for about 1 hour with the power on.
Tape	Sound quality is poor.	Playback head is dirty.	Use a cleaning tape, etc., to clean the head.
		The [RDM] button is not pressed.	When listening to a tape recorded with Dolby NR, press the [RDM] button and select B NR.

■ERROR DISPLAYS

If an error occurs, one of the following displays is displayed.
Take the measures described below to eliminate the problem.

	Error Display	Cause	Measure
CD	ERROR 2	A CD is caught inside the CD deck and is not ejected.	This is a failure of CD deck's mechanism.
	ERROR 3	A CD cannot be played due to scratches, etc.	Replace with a non-scratched, non-warped-disc.
	ERROR 6	A CD is loaded upside-down inside the CD deck and does not play.	Eject the disc then reload it properly.
Tape	ERROR 1	Tape cannot be played due to defective tape such as cut tape.	Eject the tape then replace it with a new one.
	ERROR 2	Tape is caught and cannot be played.	Remove the caught or wound tape.
	ERROR 4	Tape mode cannot be detected.	This is a failure of tape mechanism.
	ERROR 8	Tape is caught and cannot be ejected.	Eliminate the reason for which the tape is caught.
CD changer	ERROR 2	A CD inside the CD changer is not loaded.	This is a failure of CD changer's mechanism.
	ERROR 3	A CD inside the CD changer cannot be played due to scratches, etc.	Replace with a non-scratched, non-warped disc.
	ERROR 6	A CD inside the CD changer cannot be played because it is loaded upside-down.	Eject the disc then reload it properly.
MD changer	ERROR H	Displayed when the temperature in the MD changer is too high and playback has been stopped automatically.	Lower the surrounding temperature and wait for a while to cool off MD changer.
	ERROR 2	An MD inside the MD changer is not loaded.	This is a failure of MD changer's mechanism.
	ERROR 3	An MD inside the MD changer cannot be played due to scratches, etc.	Replace with a non-scratched, non-warped disc.
	ERROR 6	An MD inside the MD changer cannot be played because it is loaded upside-down.	Eject the disc then reload it properly.
		Displayed when a non-recorded MD is loaded in the MD changer.	Load a pre-recorded MD in the MD changer.

If an error display other than the ones described above appears, press the reset button.

■EXPLANATION OF IC:

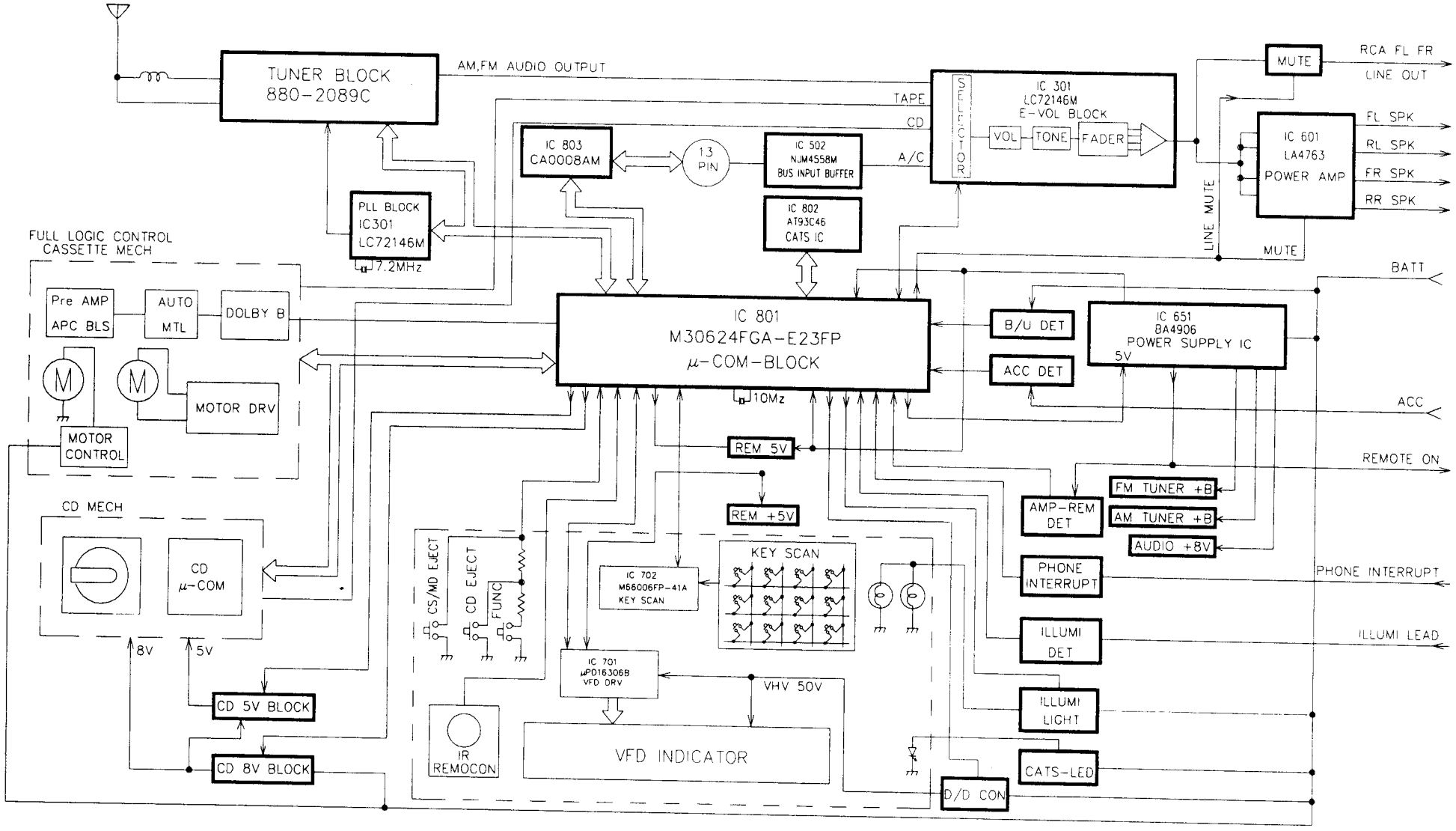
■M30624MGA-E23FP 052-3922-00 MASTER MICRO COMPUTER

1.Outward Form : 100 pins QFP

2.Terminal Description

pin 1 : RDS-MUTE : O : During RDS follow-up motion, mute is at "HI" usually it is at "LO".
pin 2 : RDS DATA : IN : RDS data input terminal.
pin 3 : RDS CLOCK : IN : RDS clock imput terminal.
pin 4 : REMOCON : IN : Signal input from Remote controller.
pin 5 : SBSY : IN : CD IC Sub-Q data request signal input.
pin 6 : DOLBY ON : O : DOLBY ON signal output.
pin 7 : TIME BASE : IN : Time base signal input terminal(8Hz).
pin 8 : $\overline{BYTE}$: IN : NC(GND).
pin 9 : CNVss : IN : NC(GND).
pin 10 : RDS TEST ST
: O : Usually input "ST" lights at "LO"; always at "HI" during seeking.
pin 11 : ST/SD : IN : AM/FM SD IN. "LO"=FM ST.
pin 12 : RESET : IN : Reset signal input. Negative logic.
pin 13 : Xout : O : Crystal connection.
pin 14 : Vss : — : Ground.
pin 15 : Xin : IN : Crystal connection.
pin 16 : Vcc : — : Positive supply voltage.
pin 17 : NMI : IN : NC(GND).
pin 18 : Acc-DET : IN : ACC ON signal input.
pin 19 : B/U-DET : IN : Backup voltage ON signal input. "L"=Backup OFF.
pin 20 : $\overline{KEY\text{-}INT}$: IN : KEY interrupt signal input. Negative logic.
pin 21 : 29PIN-CONNECT
: IN : μ COM 29PIN terminal.
pin 22 : D/D ON : O : "H"=D/D ON.
pin 23 : KEY DO : O : Serial data output to key scan IC(M66006).
pin 24 : N.C : O : Output buzzer signal.
pin 25 : KEY CLK : O : Serial data output to key scan IC(M66006).
pin 26 : KEY CS : O : Serial data output to key scan IC(M66006).
pin 27 : KEY S : O : Serial data output to key scan IC(M66006).
pin 28 : VFD STB : O : Data out to VFD driver.
pin 29 : RX : IN : Ce-NET data communication line.
pin 30 : TX : O : Ce-NET data communication line.
pin 31 : PLL-DO : O : PLL serial data output.
pin 32 : PLL-DI : IN : PLL serial data input.
pin 33 : PLL-SCK : O : PLL serial data output.
pin 34 : PLL-CE : O : PLL chip enable signal output.
pin 35 : VFD-B : O : Data out to VFD driver.
pin 36 : VFD-BLK : O : Data out to VFD driver.
pin 37 : VFD-CLK : O : Clock pulse output to VFD driver.
pin 38 : CHACK-SW : IN : "L"=Disc is loaded and the chuking switch is ON.
pin 39 : P1 : O : Power motor control signal input.
pin 40 : P2 : O : Power motor control signal input.
pin 41 : FWD/REV : O : "L"=FWD, "H"=REV.
pin 42 : APC DET : IN : "H"=Interval.
pin 43 : APC SENSE : O : Sensitivity control signal output. "L"=Play, "H"=FF/REW.
pin 44 : BIT2 : IN : Mechanism mode detect signal input.
pin 45 : BIT1 : IN : Mechanism mode detect signal input.
pin 46 : BIT3 : IN : Mechanism mode detect signal input.
pin 47 : TAPE IN : IN : "H"=Tape loading start.
pin 48 : NC : IN : NC(GND).
pin 49 : REEL PULSE : IN : Reel pulse input terminal.
pin 50 : MAIN MOTOR
: O : Main motor ON signal output.
pin 51 : MECH ON : O : Power supply control signal output for the tape mechanism. "H"=ON.
pin 52 : VOL CLK : O : Serial clock output to Electric volume.
pin 53 : VOL DO : O : Serial data output to Electric volume.
pin 54 : CATS T,P : IN : CATS enable input.
pin 55 : 5V REM : O : 5V power supply ON signal output for Micro computer.
pin 56 : KEY ILL REM
: O : Key illumination ON signal output.
pin 57 : KEY DI : IN : Serial data output to key scan IC(M66006).
pin 58 : SYS-MUTE : O : System mute signal output. Negative logic.
pin 59 : MUTE SPEED UP
: O : During RDS follow-up motion, mute speed out "LO"; usually it is at "HI".
pin 60 : CATS-LED UP
: O : CATS-LED enable signal output.
pin 61 : SYS-Acc : O : Ce-NET Acc detect signal output.
pin 62 : Vcc : — : Positive supply voltage.
pin 63 : AMP-REM-DET
: IN : "L"=The remote line is shorted.
pin 64 : Vss : — : Ground.
pin 65 : STAND BY : O : Power supply IC(BA4906) control terminal.
pin 66 : MODE2 ANT : O : "HI"=ANT power ON.
pin 67 : PHONE INT : IN : NC(GND).
pin 68 : CD-5V-REM : O : 5V power supply ON signal output.
pin 69 : CD-8V-REM : O : 8V power supply ON signal output.
pin 70 : MCW : O : Loading motor control output.
pin 71 : MCCW : O : Loading motor control output.
pin 72 : TR-C : IN : Photo sensor signal input.
pin 73 : TR-B : IN : Photo sensor signal input.
pin 74 : TR-A : IN : Photo sensor signal input.
pin 75 : CATS DET : IN : CATS DET signal input.
pin 76 : RST : O : Reset signal output to CD IC.
pin 77 : CCE : O : Chip enable signal output terminal.
pin 78 : BUCK : O : Clock output terminal to CD IC.
pin 79 : BUC3 : O : Data output terminal to CD IC.
pin 80 : BUC2 : O : Data output terminal to CD IC.
pin 81 : BUC1 : O : Data output terminal to CD IC.
pin 82 : BUC0 : O : Data output terminal to CD IC.
pin 83 : CATS CS : O : Serial data output to CATS IC(AT93C46).
pin 84 : CATS CLK : O : CLOCK pulse output to CATS IC(AT93C46).
pin 85 : SPA-C : O : Frequency select signal output for Spectrum analyzer.
pin 86 : SPA-B : O : Frequency select signal output for Spectrum analyzer.
pin 87 : SPA-A : O : Frequency select signal output for Spectrum analyzer.
pin 88 : RDS-DCHG : O : NOISE is off.
pin 89 : S METER : IN : S METER detection terminal for A/D converter.
pin 90 : VOL-CW : IN : Destination setting terminal. "LO"JAPAN, 3rd, "HI"USA.
pin 91 : VOL-CCW : IN : Destination setting terminal. "LO" 3rd and USA, "HI"JAPAN.
pin 92 : $\overline{CATS}$/MD : IN : CATS data input terminal.
pin 93 : SPA-DATA : IN : The input terminal of internal A/D converter for Spectrum analyzer.
pin 94 : $\overline{ILL\text{-}DET}$: IN : Illumination ON signal input. Negative logic.
pin 95 : NOISE IN : IN : RDS NOISE detection terminal for A/D converter.
pin 96 : A Vss : — : Ground.
pin 97 : KEY-A/D : IN : Input terminal of A/D converter for Key judgment.
pin 98 : Vref : — : Reference voltage for A/D converter.
pin 99 : A Vcc : — : Positive supply voltage for A/D converter.
pin100 : CATS DO : O : CATS data output terminal.

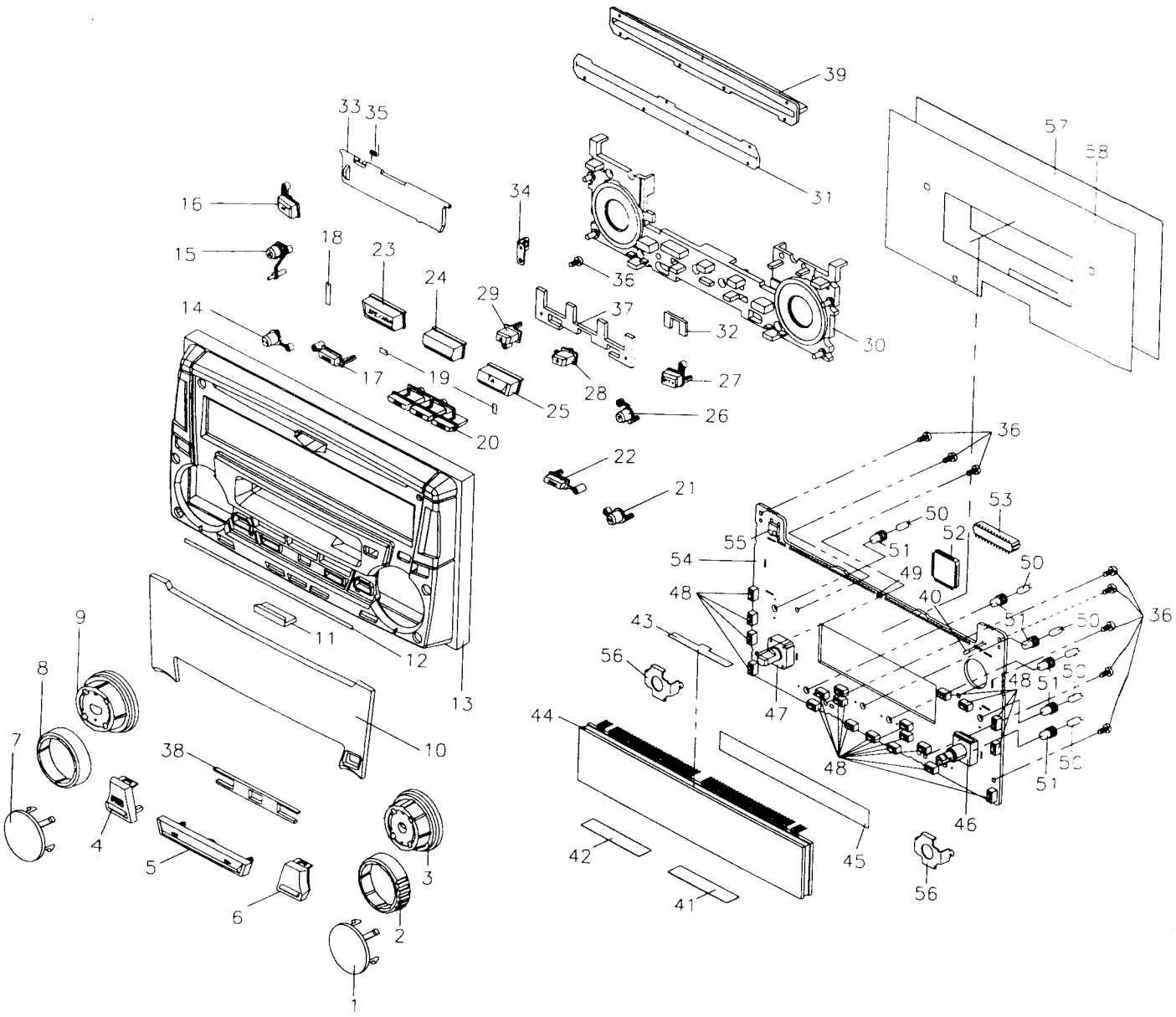
■ BLOCK DIAGRAM



ADZ62BR

■ EXPLODED VIEW · PARTS LIST:

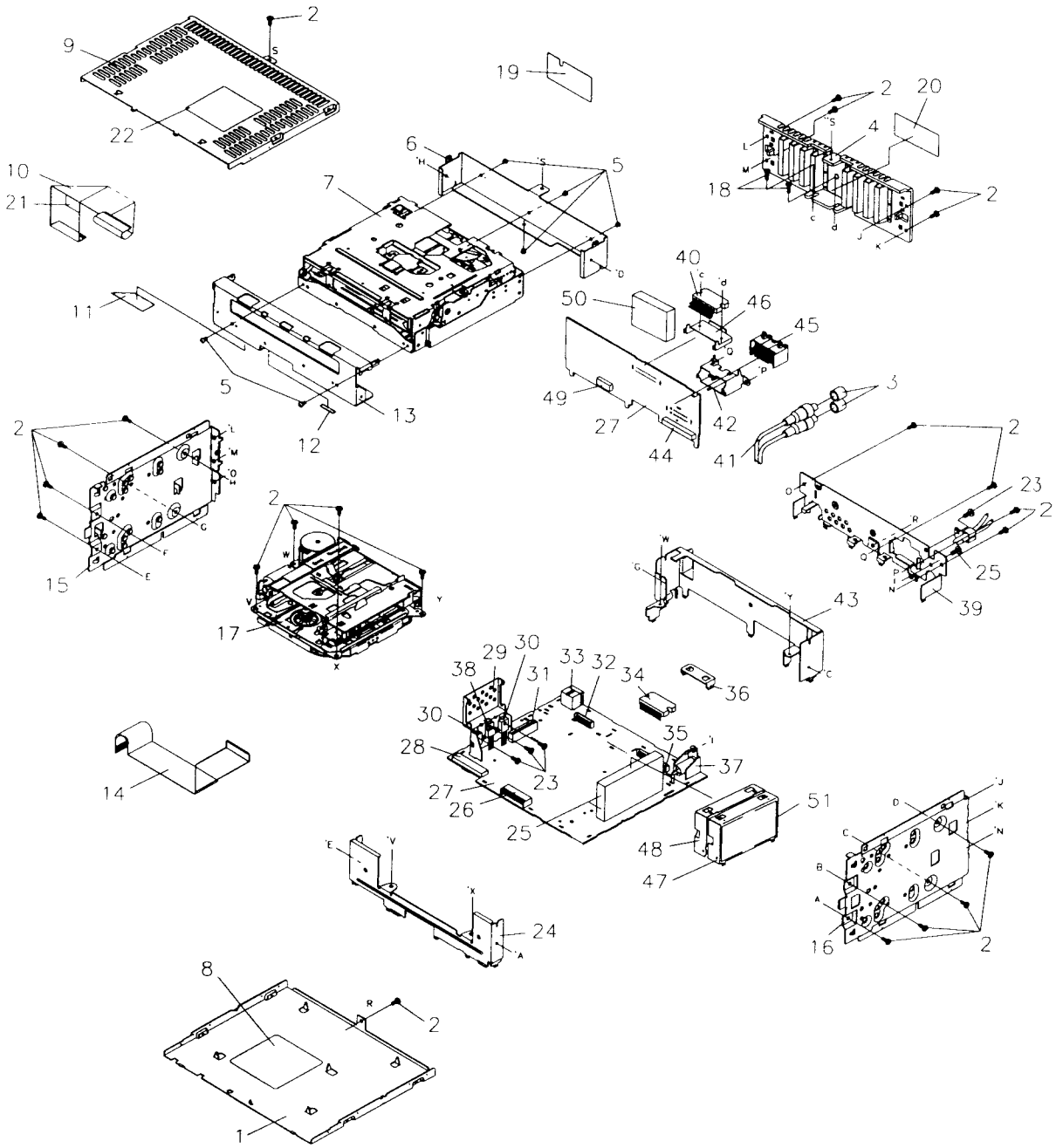
Escutcheon section



NO.	PARTS NO.	DESCRIPTION	QTY
1	383-0673-00	DECORATE KNOB(P-CH)	1
2	345-8589-00	RUBBER PART(P-CH)	1
3	380-5520-00	KNOB(P-CH)	1
4	382-6159-02	BUTTON(FNC)	1
5	382-6161-02	BUTTON(◀◀ / ▶▶)	1
6	382-6160-04	BUTTON(BND)	1
7	383-0672-00	DECORATE KNOB(VOL)	1
8	345-8588-00	RUBBER PART(VOL)	1
9	380-5519-00	KNOB(VOL)	1
10	373-0959-03	DIAL-CVR	1
11	335-6552-00	ILLUMI PART(CD)	1
12	347-6538-00	DOUBLE FACE	1
13	370-5946-02	ESCUTCHEON	1
14	382-6168-01	BUTTON(▶II)	1
15	382-6167-01	BUTTON(A-M /RESET)	1
16	382-6165-01	BUTTON(AF)	1
17	382-6171-01	BUTTON(MUTE)	1
18	347-6539-00	SHADE	1
19	347-6540-00	SHADE	2
20	382-6175-00	BUTTON(SC / RP / RD)	1
21	382-6169-01	BUTTON(MEMO)	1
22	382-6172-01	BUTTON(DISP)	1
23	382-6162-02	BUTTON(SPE / ANA)	1
24	382-6163-01	DUMMY BUTTON	1
25	382-6164-01	BUTTON(TA)	1
26	382-6170-01	BUTTON(TITLE)	1
27	382-6166-01	BUTTON(PTY)	1
28	382-6173-01	BUTTON(CD-EJE)	1
29	382-6174-02	BUTTON(CS / MD-EJE)	1
30	335-6554-01	ILLUMI PART	1

NO.	PARTS NO.	DESCRIPTION	QTY
31	346-0118-20	LEATHER SHEET	1
32	345-8708-00	STOPPER	1
33	320-0562-03	DUSTPROOF CVR	1
34	331-3153-00	STOPPER(CS-DOOR)	1
35	750-3343-01	SPRING(DOOR)	1
36	716-0778-00	WAVE SCREW(M2×6)	9
37	345-8630-00	SPONGE	1
38	345-8641-00	SPONGE	1
39	371-3827-20	TRIM PLATE	1
40	001-7017-01	DIODE	1
41	347-5919-00	SURGE PROTECT	1
42	347-6543-00	SHADE(VFD)	1
43	347-6621-00	SHADE(VFD)	1
44	379-4036-24	INDICATOR	1
45	347-6541-00	DOUBLF FACF	1
46	016-9900-80	VR W / SHAFT	1
47	016-9900-81	VR W / SHAFT	1
48	013-6305-50	TACT SWITCH	20
49	001-7011-96	DIODE	1
50	017-0444-00	PILOT LAMP(14V 50mA)	6
51	345-3739-14	LAMP CAP	6
52	051-6029-00	IC	1
53	074-1279-24	OUTLET SOCCKET	1
54	039-2071-00	SW PWB (WITHOUT COMPONENT)	1
55	060-4008-00	IR RECEIVE	1
56	331-3197-00	JOG-SW-HOLDER	2
57	347-6544-00	SHILD PART	1
58	347-6545-00	FILM	1

Main section

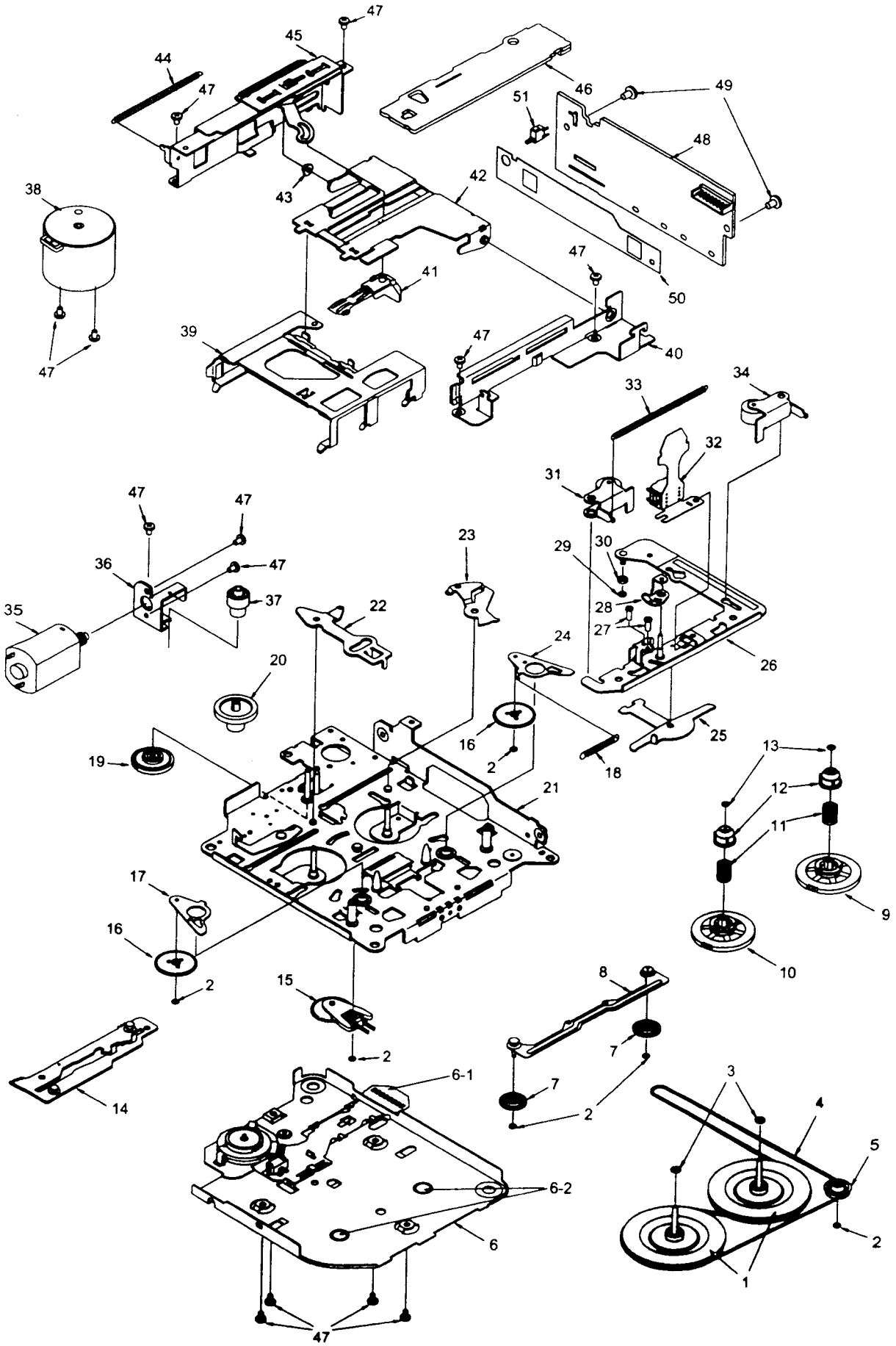


NO.	PARTS NO.	DESCRIPTION	Q'TY
1	311-1772-01	LOWER CASE	1
2	714-2606-81	MACHINE SCREW(M2.6×6)	22
3	345-3799-20	RUBBER PART	2
4	313-1811-00	HEAT SINK	1
5	714-2303-81	MACHINE SCREW(M2.3×3)	6
6	331-2282-20	MECH BRKT(R)	1
7	929-0092-82	CD MECH-MODULE	1
8	286-9889-00	SET PLATE	1
9	310-1639-20	UPPER CASE	1
10	816-2451-50	FLAT WIRE	1
11	347-5679-22	DOUBLE FACE	1
12	347-6036-00	DOUBLE FACE	1
13	331-2281-21	MECH BRKT(F)	1
14	816-2478-00	FLAT WIRE	1
15	305-0279-00	SIDE PLATE (LH)	1
16	305-0278-00	SIDE PLATE (RH)	1
17	930-0798-81	TAPE-MECH	1
18	714-2612-81	MACHING SCREW(M2.6×12)	2
19	347-6309-00	INSULATOR	1
20	347-6542-00	SHADE	1
21	347-6242-00	INSULATOR	1
22	291-0083-00	STICKER	1
23	714-3006-81	MACHING SCREW(M3×6)	5
24	309-0728-02	FRONT PLATE	1
25	880-2089C	TUNER	1
26	076-0648-24	PLUG	1

NO.	PARTS NO.	DESCRIPTION	Q'TY
27	039-2068-01	MAIN PWB (WITHOUT COMPONENT)	1
28	074-1186-26	OUTLET SOCKET	1
29	313-1789-00	HEAT SINK	1
30	102-3420-50	TRANSISTOR	2
31	074-0834-22	OUTLET SOCKET	1
32	076-0353-06	PLUG	1
33	074-1194-00	OUTLET SOCKET	1
34	051-3261-00	IC	1
35	076-0353-17	PLUG	1
36	313-1772-02	HEAT SINK	1
37	092-4000-51	ANT-RECEPT	1
38	103-2012-00	TRANSISTOR	1
39	307-0650-00	REAR PLATE	1
40	051-2031-31	IC	1
41	855-5426-50	RCA-PIN-CORD	1
42	331-2644-00	OUTLET HOLDER	1
43	331-2920-01	MECH PLATE	1
44	074-0881-17	OUTLET SOCKET	1
45	074-1214-01	OUTLET SOCKET	1
46	331-2277-20	IC HOLDER	1
47	331-2945-00	SHIELD CVR(F)	1
48	331-2946-00	SHIELD CVR(R)	1
49	074-0881-06	OUTLET SOCKET	1
50	060-6019-00	DC-DC CONVERTER	1
51	347-6285-00	IN SULATOR	1

■ EXPLODED VIEW:

Tape mechanism section 930-0798-81



■ PARTS LIST:

Tape mechanism section 930-0798-81

Note) Several different parts of the same reference number are alternative parts.
One of those parts is used in the set.

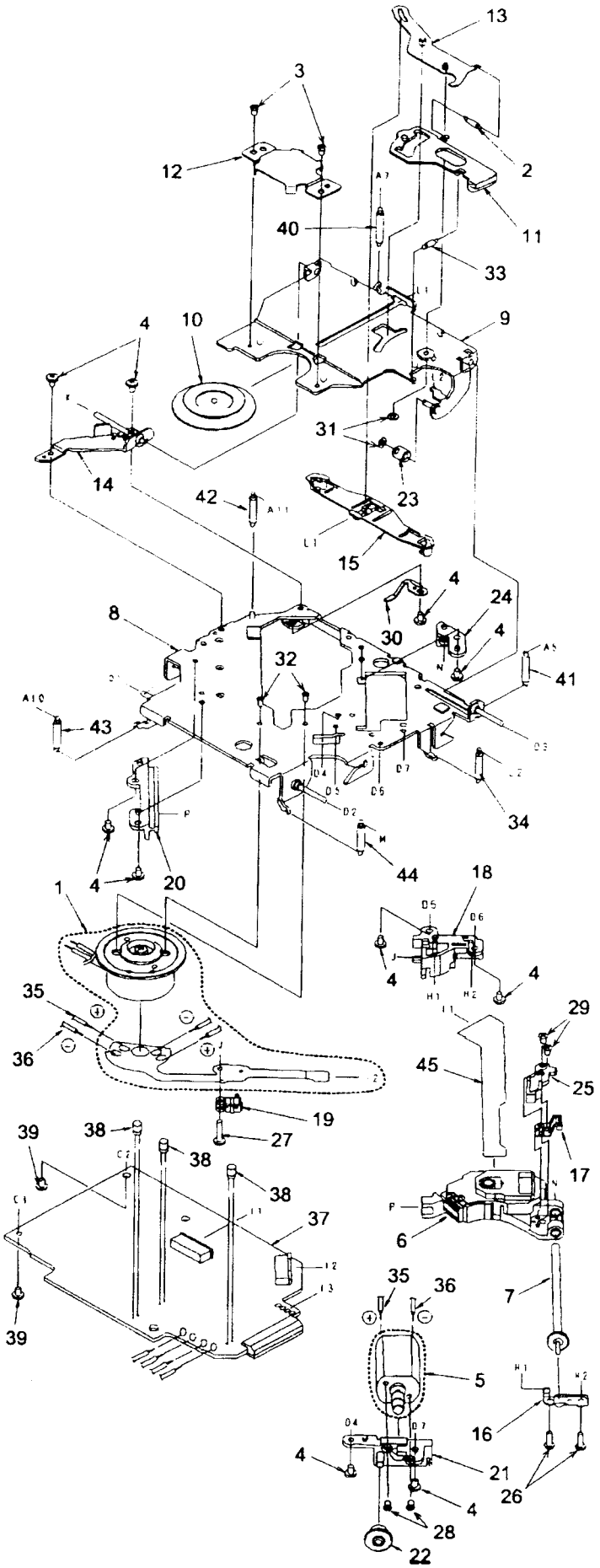
NO.	PART NO.	DESCRIPTION	Q'TY
1	611-0091-03	FLYWHEEL	2
2	746-0724-00	WASHER	6
3	746-0624-00	WASHER	2
4	602-0118-00	BELT	1
5	604-0046-00	TENTION PULLEY	1
6	960-4450-00	BOTTOM SUB ASSY	1
6-1	099-9926-01	BOTTOM FLEX-PWB (WITHOUT COMPONENT)	1
6-2	746-0767-00	WASHER	2
7	613-0286-02	FF/REW GEAR	2
8	960-4262-03	FF/REW PLATE ASSY	1
9	960-4430-00	REEL ASSY F	1
10	960-4431-00	REEL ASSY R	1
11	750-2949-00	SLIDE SPRING	2
12	631-1993-01	SLIDE BUSH	2
13	746-0761-00	WASHER	2
14	960-4266-20	MODE POLATE ASSY	1
15	960-4282-06	DETECT SUB ASSY	1
16	613-0662-00	IDLER GEAR	2
17	960-4264-03	IDOLER PLATE ASSY R	1
18	750-3017-02	IDLER SPRING	1
19	613-0337-00	POWER GEAR	1
20	613-0289-01	GEAR A	1
21	960-4294-22	DECK PLATE ASSY	1
22	960-4301-02	PLAY LINK ASSY	1
23	630-2598-05	EJECT LINK	1
24	960-4263-03	IDOLER PLATE ASSY F	1
25	630-2597-01	CHANGE LINK	1

NO.	PART NO.	DESCRIPTION	Q'TY
26	960-4261-20	HEAD PLATE ASSY	1
27	716-0833-10	AZIMUTH SCREW	2
28	630-2600-01	ADJUST LINK	1
29	746-0762-00	WASHER	1
30	610-0342-01	HADE PLATE ROLLER	1
31	960-4270-05	ROLLER ASSY R	1
32	011-0328-00	HEAD	1
33	750-2946-02	PINCH SPRING	1
34	960-4269-05	ROLLER ASSY F	1
35	SMA-131-100	POWER MOTOR ASSY	1
36	630-2601-02	MOTOR PLATE	1
37	613-0288-01	HELICAL GEAR	1
38	SMA-130-100	MAIN MOTOR ASSY	1
39	606-0093-82	PACK GUIDE	1
40	630-2626-05	PWB FRAME	1
41	631-1992-02	PACK STOPPER	1
42	630-2642-01	GUIDE ARM	1
43	610-0343-00	GUIDE A ROLLER	1
44	750-2947-04	EJECT PLATE SPRING	1
45	960-4389-20	EJECT SUB ASSY	1
46	039-0053-00	SIDE PWB (WITHOUT COMPONENT)	1
47	716-0484-00	SCREW	13
48	HBS-487-100	REAR PWB ASSY (WITH COMPONENT)	1
49	716-0761-01	PWB SCREW	2
50	347-4080-01	INSULATOR	1
51	013-3906-00	SWITCH	1

■ EXPLODEDVIEW:

CD mechanism section 929-0092-82

Drive unit section



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■ PARTS LIST:

CD mechanism section 929-0092-82

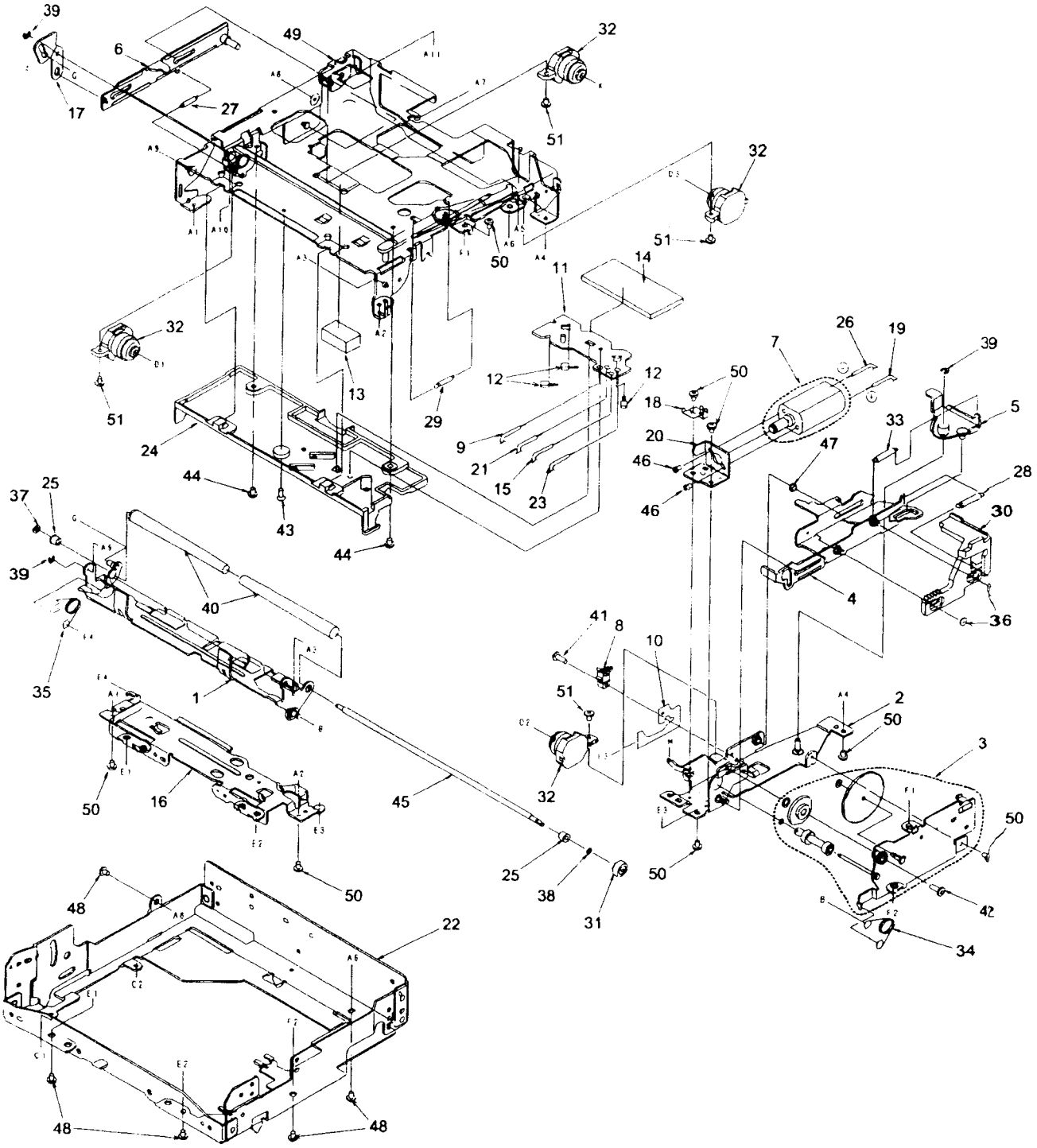
Note)Several different parts of the same reference number are alternative parts.
One of those parts is used in the set.

Drive unit section

NO.	PARTS NO.	DESCRIPTION	QTY
1	SMA-151-100	MOTOR ASSY (SPINDLE)	1
2	750-3098-00	L-LINK SPRING	1
3	716-1468-00	SCREW (M2×2.5)	2
4	716-2003-81	SCREW (M2×3)	10
5	SMA-146-100	MOTOR ASSY (SLED)	1
6	969-0008-00	PICK UP UNIT	1
7	HBS-432-100	LS-GEAR ASSY	1
8	966-0447-07	DR-PLATE-ASSY	1
9	966-0449-04	CLAMP-LINK-ASSY	1
10	621-0205-02	CLAMPER RING	1
11	621-0251-03	LOCK LINK	1
12	620-0198-03	CLAMPER PLATE	1
13	966-0314-01	STOP LINK-ASSY	1
14	966-0448-01	SIDE PLATE-ASSY	1
15	621-0252-03	DISC STOPPER	1
16	620-0491-03	SPRING PLATE	1
17	966-0454-00	SCREW H-RACK-ASSY	1
18	621-0358-02	LS-HOLDER-F	1
19	013-7100-00	SWITCH (LIMIT)	1
20	621-0357-03	PICK UP GUIDE	1
21	621-0253-02	MOTOR HOLDER	1
22	621-0255-02	SECOND GEAR	1
23	622-1073-02	CLAMPER ROLLER	1
24	621-0359-02	LS-HOLDER-R	1

NO.	PARTS NO.	DESCRIPTION	QTY
25	621-0375-00	SH-BASE	1
26	716-0675-00	SCREW (M2×5.5)	2
27	716-1555-00	WAVE SCREW (φ2×8)	1
28	732-2004-11	SEMS SCREW (M2×4)	2
29	739-1735-17	PRECISION SCREW (M1.7×3.5)	2
30	620-0690-01	RATTLE PLATE	1
31	746-0761-00	WASHER	2
32	716-1733-00	SCREW (M1.7×2.3)	2
33	750-3099-00	ES-SPRING	1
34	750-3097-03	CLAMPER SPRING	1
35	816-2373-00	LEAD WIRE (WHT)	1
36	816-2372-00	LEAD WIRE (BLU)	1
37	039-1732-01	CD PWB (WITHOUT COMPONENT)	1
38	001-0563-00	LED	3
39	716-1670-00	SCREW (M2×4)	2
40	750-3202-00	CENTER SPRING-B	1
41	750-3096-01	DR-SPRING R	1
42	750-3164-00	DR-SPRING LR	1
43	750-3188-00	DR-SPRING F-B	1
44	750-3201-00	DR-SPRING F-R	1
45	039-1587-00	FPC (WITHOUT COMPONENT)	1

MECH chassis section



MECH chassis section

NO.	PARTS NO.	DESCRIPTION	QTY
1	966-0309-05	L-DISC-G-ASSY	1
2	966-0310-06	SHIFT-P-CH-ASSY	1
3	HBS-430-100	GEAR PLATE ASSY	1
4	966-0312-06	SHIFT-PLATE-ASSY	1
5	966-0358-01	DRIVE-L-PLATE-ASSY	1
6	966-0359-03	SIDE-L-PLATE-ASSY	1
7	SMA-147-100	MOTOR ASSY (LOADING)	1
8	013-3879-01	CHUCKING SWITCH	1
9	804-4910-60	VINYL-COAT-WIRE (YEL)	1
10	039-0586-01	CHUCKING SWITCH PWB (WITHOUT COMPONENT)	1
11	039-0588-01	SENSOR PWB (WITHOUT COMPONENT)	1
12	060-0252-01	PHOTO-TR	3
13	345-7513-01	CLAMPER SHEET	1
14	345-7514-00	SENSOR PWB SHEET	1
15	802-4910-60	VINYL-COAT-WIRE (RED)	1
16	620-0485-04	FRONT PLATE	1
17	620-0488-01	S-L-LINK PLATE	1
18	620-0489-02	MOTOR PLATE	1
19	802-4904-60	VINYL-COAT-WIRE (RED)	1
20	620-0492-01	MOTOR BRACKET	1
21	801-4910-60	VINYL-COAT-WIRE (BRN)	1
22	620-0773-01	CD-MECH-BRKT	1
23	800-4910-60	VINYL-COAT-WIRE (BLK)	1
24	621-0402-01	U-DISC GUIDE-F	1
25	621-0243-02	ROLLER SLEEVE	2

NO.	PARTS NO.	DESCRIPTION	QTY
26	800-4904-60	VINYL-COAT-WIRE (BLK)	1
27	750-3189-00	SIDE-L-SPRING	1
28	750-3098-00	L-LINK SPRING	1
29	750-3094-00	S-ARM SPRING	1
30	621-0248-07	RACK GEAR	1
31	621-0249-02	ROLLER GEAR	1
32	629-0074-00	DAMPER	4
33	750-3092-03	SHIFT SPRING	1
34	750-3091-03	ROADING-SPRING-R	1
35	750-3090-02	ROADING-SPRING-L	1
36	746-0877-02	WASHER	2
37	746-0762-00	WASHER	1
38	746-0712-03	WASHER	1
39	743-1500-10	E-RING	3
40	621-0258-03	LOADING ROLLER	2
41	716-1742-00	SCREW (M2×5)	1
42	716-1704-00	SCREW (M2×7)	1
43	716-1677-00	SCREW (M2×5)	1
44	716-1507-00	SCREW (M2×3)	2
45	622-1072-05	ROLLER SHAFT	1
46	716-1468-00	SCREW (M2×2.5)	2
47	622-1219-01	SHIFT ROLLER	1
48	714-2603-81	SCREW (M2.6×3)	5
49	966-0308-11	CHASSIS ASSY	1
50	714-2003-81	SCREW (M2×3)	8
51	716-1670-00	SCREW (M2×4)	4

■ ELECTRICAL PARTS LIST

Main PWB section (B1)

REF No.	PART No.	DESCRIPTION
IC 201	051-5823-00	LC72723M0
IC 202	051-0350-93	NJM4558M
IC 301	051-6201-90	LC72146M
IC 501	051-5016-90	TDA7404
IC 502	051-0350-93	NJM4558M
IC 651	051-3261-00	BA4906
IC 801	052-3922-00	M30624MGA-E23FP
IC 802	051-9400-18	AT93C46
IC 803	051-6600-38	CA0008AM
IC 821	051-5403-08	S-80725NT1
IC 852	051-5818-90	BA3834F
Q 102	125-2004-93	RN2403
Q 103	125-2004-96	2SD1306
Q 104	125-2001-92	RN1402
Q 201	125-0002-92	RN2402
Q 202	125-2001-92	RN1402
Q 203	125-2001-92	RN1402
Q 301	198-0669-00	2SK669
Q 651	191-1237-00	2SB1237
Q 652	192-2712-00	2SC2712
Q 653	125-0002-92	RN2402
Q 654	125-2004-93	RN1403
Q 701	125-4001-90	XN1504
Q 801	192-2712-0	2SC2712
Q 802	190-1162-00	2SA1162
Q 803	190-1162-00	2SA1162
Q 804	125-0002-92	RN2402
Q 805	125-0002-92	RN2402
Q 806	192-2712-00	2SC2712
Q 807	192-2712-00	2SC2712
Q 813	125-2001-92	RN1402
Q 814	125-0002-92	RN2402
Q 815	192-2712-00	2SC2712
Q 816	125-2004-94	RN1404
Q 901	191-1240-00	B1240
Q 902	125-2004-96	RN1406
Q 904	103-2012-00	2SD2012
Q 905	125-0002-96	RN2406
Q 906	125-2004-96	RN1406
Q 907	125-0002-96	RN2406
Q 908	102-3420-50	2SC3420GR
Q 909	125-2004-96	RN1406
Q 910	125-2004-96	RN1406
Q 911	102-3420-50	2SC3420GR
Q 912	125-0002-96	RN2406
Q 913	125-2004-96	RN1406
Q 951	190-1298-00	2SA1298
Q 952	125-2001-92	RN1402
Q 953	125-0002-92	RN2402
Q 954	125-2001-92	RN1402
D 201	001-0516-90	MA111
D 202	001-0516-90	MA111

REF No.	PART No.	DESCRIPTION
D 551	001-0346-26	MTZ4.7JB
D 611	001-0466-91	S5688G
D 612	001-0466-91	S5688G
D 613	001-0516-90	MA111
D 614	001-0516-90	MA111
D 651	001-0516-90	MA111
D 652	001-0516-90	MA111
D 801	001-0516-90	MA111
D 802	001-0516-90	MA111
D 803	001-0516-90	MA111
D 804	001-0516-90	MA111
D 805	001-0516-90	MA111
D 806	001-0346-41	MTZ7.5JB
D 807	001-0346-30	MTZ5.1JC
D 808	001-0346-32	MTZ5.6JB
D 901	001-0466-91	S5688G
D 903	001-0316-47	MTZ9.1JB
D 905	001-0316-47	MTZ9.1JB
D 906	001-0516-90	MA111
D 907	001-0346-32	MTZ5.6JB
L 101	010-4046-00	AM5.6 μH
L 102	010-2230-14	2.2 μH
L 103	010-2230-38	220 μH
L 104	010-2230-38	220 μH
L 105	010-2230-32	68 μH
L 201	010-2230-38	220 μH
L 301	010-2230-38	220 μH
L 801	010-2230-10	1 μH
L 802	010-2230-14	2.2 μH
L 951	010-2230-19	5.6 μH
L 952	010-2230-35	120 μH
X 201	061-3013-00	4.332M
X 301	061-1066-00	AT51-7.2M
X 801	060-1505-50	CSCTCC10MG
C 101	166-2201-50	22P
C 103	166-1801-50	18P
C 104	168-2245-79	0.022 μF
C 105	183-4763-37	16V 47 μF
C 106	183-4763-37	16V 47 μF
C 107	168-2245-79	0.022 μF
C 108	168-2245-79	0.022 μF
C 109	042-0615-01	10V 100 μF
C 110	168-6822-55	6800P
C 111	168-1032-55	0.01 μF
C 112	183-1053-67	50V 1 μF
C 113	166-1011-50	100P
C 114	168-2732-55	0.027 μF
C 115	166-2201-50	22P
C 117	168-2245-79	0.022 μF
C 118	168-1022-55	1000P
C 119	183-4753-57	35V 4.7 μF
C 120	168-1032-55	0.01 μF

REF No.	PART No.	DESCRIPTION
C 121	168-1032-55	0.01 μF
C 122	168-4732-78	0.047 μF
C 123	168-4732-78	0.047 μF
C 124	168-4732-78	0.047 μF
C 125	043-0523-50	0.1 μF
C 128	168-1022-55	1000P
C 129	168-1022-55	1000P
C 130	166-1011-50	100P
C 131	166-1011-50	100P
C 132	166-1011-50	100P
C 134	168-1022-55	1000P
C 135	172-1041-15	0.1 μF
C 136	173-4711-18	470P
C 137	173-4711-18	470P
C 139	183-4763-37	16V 47 μF
C 201	168-3312-55	330P
C 202	043-0523-50	0.1 μF
C 203	168-5612-00	560P
C 204	166-2201-50	22P
C 205	166-2201-50	22P
C 207	183-4763-37	16V 47 μF
C 208	168-1032-55	0.01 μF
C 209	168-2232-55	0.022 μF
C 211	119-8211-15	820P
C 212	168-6821-15	680P
C 213	168-2232-55	0.022 μF
C 214	183-4763-37	16V 10 μF
C 215	043-0523-50	0.1 μF
C 230	168-1022-55	1000P
C 231	168-6812-55	680P
C 232	168-1022-55	1000P
C 233	168-4732-78	0.047 μF
C 234	168-2232-55	0.022 μF
C 235	168-1022-55	1000P
C 236	166-2069-50	2P
C 301	168-2232-55	0.022 μF
C 302	183-4763-37	16V 47 μF
C 303	168-3312-55	330P
C 304	166-1011-55	100P
C 305	166-1011-55	100P
C 306	043-0523-50	0.1 μF
C 307	183-1053-67	50V 1 μF
C 308	168-1222-55	1200P
C 309	168-8222-55	8200P
C 310	166-1501-50	15P
C 311	166-1801-50	18P
C 501	168-1832-55	0.018 μF
C 502	168-1832-55	0.018 μF
C 503	183-1053-67	50V 1 μF
C 504	183-1053-67	50V 1 μF
C 505	183-1053-67	50V 1 μF
C 506	183-1053-67	50V 1 μF

REF No.	PART No.	DESCRIPTION
C 507	183-1053-67	50V 1 μ F
C 508	183-1053-67	50V 1 μ F
C 509	168-1032-55	0.01 μ F
C 510	168-1032-55	0.01 μ F
C 511	183-1053-67	50V 1 μ F
C 512	183-1053-67	50V 1 μ F
C 513	042-0563-71	16V 100 μ F
C 514	042-0563-71	16V 100 μ F
C 515	168-1032-55	0.01 μ F
C 518	168-1522-55	1500P
C 519	168-1522-55	1500P
C 551	183-1063-37	16V 10 μ F
C 552	183-1063-37	16V 10 μ F
C 553	183-1063-37	16V 10 μ F
C 554	183-1063-37	16V 10 μ F
C 555	166-1201-50	12P
C 556	166-1201-50	12P
C 557	166-1201-50	12P
C 558	166-1201-50	12P
C 559	183-4763-37	16V 47 μ F
C 570	042-9034-00	63V 47 μ F
C 601	183-4743-67	50V 0.47 μ F
C 602	183-4743-67	50V 0.47 μ F
C 603	183-4743-67	50V 0.47 μ F
C 604	183-4743-67	50V 0.47 μ F
C 615	183-3353-67	50V 3.3 μ F
C 616	166-1011-50	100P
C 651	042-0563-71	16V 100 μ F
C 652	042-0563-71	16V 100 μ F
C 653	183-2263-37	16V 22 μ F
C 657	042-0393-00	35V 100 μ F
C 658	042-0393-00	35V 100 μ F
C 701	183-2263-37	16V 22 μ F
C 702	183-2263-37	16V 22 μ F
C 801	183-1063-37	16V 10 μ F
C 802	172-1031-15	0.01 μ F
C 803	172-1031-15	0.01 μ F
C 804	183-1063-37	16V 10 μ F
C 805	168-4732-78	0.047 μ F
C 807	168-2232-55	0.022 μ F
C 808	168-1032-55	0.01 μ F
C 809	042-0577-00	6.3V 100 μ F(LN)
C 810	042-0576-00	5.5V 0.1 μ F
C 811	166-1011-50	100P
C 813	043-0523-50	0.1 μ F
C 814	183-2263-37	16V 22 μ F
C 818	166-1011-50	100P
C 819	168-1022-55	1000P
C 820	166-1007-50	10P
C 821	166-1011-50	100P
C 822	166-2211-50	220P
C 823	166-1011-50	100P

REF No.	PART No.	DESCRIPTION
C 824	168-1022-55	1000P
C 825	166-1011-50	100P
C 826	166-1011-50	100P
C 827	168-1022-55	1000P
C 830	168-1022-55	1000P
C 831	168-1022-55	1000P
C 833	166-2211-50	220P
C 834	166-2211-50	220P
C 851	043-0523-50	0.1 μ F
C 852	043-0523-50	0.1 μ F
C 853	043-0523-50	0.1 μ F
C 854	043-0523-50	0.1 μ F
C 855	183-1063-37	16V 10 μ F
C 856	168-1032-55	0.01 μ F
C 857	168-1032-55	0.01 μ F
C 901	042-0563-71	16V 100 μ F
R 606	119-1031-15	10K Ω
R 607	119-1821-15	1.8K Ω
R 651	119-4731-15	47K Ω
R 652	111-1021-98	1/4W 1K Ω
R 653	119-1031-15	10K Ω
R 654	119-2231-15	22K Ω
R 655	119-4721-15	4.7K Ω
R 656	119-1021-15	1K Ω
R 657	119-2231-15	22K Ω
R 658	119-1031-15	10K Ω
R 701	119-1021-15	1K Ω
R 702	119-4721-15	4.7K Ω
R 703	119-4721-15	4.7K Ω
R 704	119-3311-15	330 Ω
R 705	119-3311-15	330 Ω
R 801	119-4721-15	4.7K Ω
R 802	119-1031-15	10K Ω
R 803	119-4721-15	4.7K Ω
R 804	119-4721-15	47K Ω
R 805	119-4741-15	470K Ω
R 806	119-1531-15	15K Ω
R 807	119-1031-15	10K Ω
R 808	119-3311-15	330 Ω
R 809	119-3321-15	3.3K Ω
R 810	119-1531-15	15K Ω
R 811	119-2231-15	22K Ω
R 812	119-1041-15	100K Ω
R 813	119-1041-15	100K Ω
R 814	119-5621-15	5.6K Ω
R 815	119-1521-15	1.5K Ω
R 816	119-4731-15	47K Ω
R 817	119-2231-15	22K Ω
R 818	119-1531-15	15K Ω
R 820	119-1031-15	10K Ω
R 823	119-2231-15	22K Ω
R 824	119-1041-15	100K Ω

REF No.	PART No.	DESCRIPTION
R 825	119-2241-15	220K Ω
R 826	119-3321-15	3.3K Ω
R 827	111-1811-98	1/4W 180 Ω
R 828	111-1811-98	1/4W 180 Ω
R 829	111-6801-98	1/4W 68 Ω
R 830	119-4721-15	47K Ω
R 831	119-1031-15	10K Ω
R 834	119-3321-15	3.3K Ω
R 835	119-3321-15	3.3K Ω
R 836	119-3321-15	3.3K Ω
R 851	119-1011-15	100 Ω
R 852	119-2231-15	22K Ω
R 854	119-2231-15	22K Ω
R 855	119-1831-15	1/4W 18K Ω
R 856	119-1031-15	10K Ω
R 857	119-1031-15	10K Ω
R 864	119-1031-15	10K Ω
R 901	119-1031-15	10K Ω
R 902	111-4711-98	1/4W 470 Ω
R 903	111-4711-98	1/4W 470 Ω
R 904	111-3311-98	1/4W 330 Ω
R 905	111-3311-98	1/4W 330 Ω
R 908	119-4731-15	47K Ω
R 909	119-1041-15	100K Ω
R 910	119-1041-15	100K Ω
R 911	119-1041-15	100K Ω
R 914	119-1041-15	100K Ω
R 915	119-1031-15	10K Ω
R 916	119-1031-15	10K Ω
R 917	119-1031-15	10K Ω
R 918	119-1031-15	10K Ω
R 919	119-1031-15	10K Ω
R 922	119-2231-15	22K Ω
R 923	111-5611-98	1/4W 560 Ω
R 951	119-1031-15	10K Ω
R 952	111-1221-98	1/4W 1.2K Ω
R 953	111-4711-98	1/4W 470 Ω
R 954	111-4711-98	1/4W 470 Ω
R 955	119-1031-15	10K Ω
SUP101	060-0122-91	MDSP-101
CN 101	076-0648-24	22PD
CN 103	074-1186-26	26P
CN 104	076-0353-06	6P
CN 106	076-0353-17	CN-POWER
J 810	074-1194-00	13P
J 903	074-0834-22	CN-CASS

Switch PWB section (B2)

REF No.	PART No.	DESCRIPTION
IC 701	051-6029-00	μ-COM
IC 702	051-6618-08	M66006FP-41A
D 701	001-0516-90	MA111
D 702	001-0516-90	MA111
D 703	001-0516-90	MA111
D 704	001-0516-90	MA111
D 707	001-0516-90	MA111
D 709	001-0516-90	MA111
D 710	001-0516-90	MA111
D 711	001-0516-90	MA111
D 713	001-0516-90	MA111
D 714	001-0516-90	MA111
D 715	001-0516-90	MA111
D 716	001-0516-90	MA111
D 717	001-0516-90	MA111
D 718	001-0516-90	MA111
D 719	001-0516-90	MA111
D 720	001-0516-90	MA111
D 721	001-0516-90	MA111
L 701	010-2174-78	220 μH
C 701	168-1522-55	1500P
C 702	166-1011-50	100P
C 703	043-0318-90	5600P
C 704	043-0318-90	5600P
C 705	043-0318-90	5600P
C 706	043-0318-90	5600P
C 707	043-0318-90	5600P
C 708	043-0318-90	5600P
C 709	043-0318-90	5600P
C 710	043-0318-90	5600P
C 711	043-0318-90	5600P
C 712	043-0318-90	5600P

REF No.	PART No.	DESCRIPTION
C 713	043-0318-90	5600P
C 714	043-0318-90	5600P
C 715	043-0318-90	5600P
C 716	043-0318-90	5600P
C 717	043-0318-90	5600P
C 718	043-0318-90	5600P
C 719	043-0318-90	5600P
C 720	043-0318-90	5600P
C 721	168-1522-55	1500P
C 722	166-1011-50	100P
C 725	042-0416-51	6.3V 10 μF
C 728	043-0523-50	0.1 μF
C 731	168-1032-55	0.01 μF
CN 701	074-1279-24	OUTLET SOCKET
R 701	119-1031-15	10KΩ
R 702	119-1031-15	10KΩ
R 703	119-1031-15	10KΩ
R 704	119-1031-15	10KΩ
R 706	119-1041-15	100KΩ
R 707	119-1041-15	100KΩ
R 708	119-1041-15	100KΩ
R 709	119-1041-15	100KΩ
R 710	119-1041-15	100KΩ
R 711	119-1031-15	10KΩ
R 712	119-1011-15	100Ω
R 713	119-1021-15	1KΩ
R 714	119-1521-15	1.5KΩ
R 715	119-1521-15	1.5KΩ
R 716	119-1021-15	1KΩ
R 717	119-2421-15	2.4KΩ
R 718	119-2021-15	2KΩ
R 719	119-4711-15	470Ω

REF No.	PART No.	DESCRIPTION
R 720	119-1031-15	10KΩ
R 721	119-1031-15	10KΩ
PL 701	017-0444-00	LAMP
PL 702	017-0444-00	LAMP
PL 703	017-0444-00	LAMP
PL 704	017-0444-00	LAMP
PL 705	017-0444-00	LAMP
PL 706	017-0444-00	LAMP
S 701	013-6305-50	SKQMAH
S 702	013-6305-50	SKQMAH
S 703	013-6305-50	SKQMAH
S 706	013-6305-50	SKQMAH
S 707	013-6305-50	SKQMAH
S 708	013-6305-50	SKQMAH
S 709	013-6305-50	SKQMAH
S 710	013-6305-50	SKQMAH
S 711	013-6305-50	SKQMAH
S 712	013-6305-50	SKQMAH
S 713	013-6305-50	SKQMAH
S 715	013-6305-50	SKQMAH
S 716	013-6305-50	SKQMAH
S 717	013-6305-50	SKQMAH
S 718	013-6305-50	SKQMAH
S 719	013-6305-50	SKQMAH
S 723	013-6305-50	SKQMAH
S 724	013-6305-50	SKQMAH
S 725	013-6305-50	SKQMAH
S 726	013-6305-50	SKQMAH
VR 701	016-9900-81	VR
VR 702	016-9900-80	VR

/D CON PWB section (B3)

EF No.	PART No.	DESCRIPTION
C 601	051-2031-31	LA4763
) 851	191-1243-00	2SB1243
) 852	192-2713-00	2SC2713
) 853	192-2712-00	2SC2712
DPACK	060-6019-00	DC-DC CONVERTER
) 601	001-0592-00	RM4Z
) 602	001-0466-91	S5688G
) 603	001-0466-91	S5688G
) 604	001-0466-91	S5688G
605	001-0466-91	S5688G
) 606	001-0466-91	S5688G
) 607	001-0466-91	S5688G
) 608	001-0466-91	S5688G
) 609	001-0466-91	S5688G
) 851	001-0644-90	MA113
) 852	001-0347-55	MA4120L
) 853	001-0347-69	MA4180M
) 854	001-0516-90	MA111
) 855	001-0516-90	MA111

REF No.	PART No.	DESCRIPTION
D 856	001-0516-90	MA111
L 601	010-8020-01	CHOKE
L 851	010-3058-57	47 μH
L 852	010-2230-38	220 μH
C 605	183-4763-37	16V 47 μF
C 606	183-2263-37	16V 22 μF
C 607	172-3331-15	0.033 μF
C 608	172-3331-15	0.033 μF
C 609	172-3331-15	0.033 μF
C 610	172-3331-15	0.033 μF
C 612	172-2231-15	0.022 μF
C 613	042-0479-00	16V 2200 μF
C 623	183-1053-67	50V 1 μF
C 624	183-1053-67	50V 1 μF
C 625	168-4722-55	4700P
C 626	168-4722-55	4700P
C 627	168-4722-55	4700P
C 861	042-0393-00	35V 100 μF
C 862	042-9034-00	63V 47 μF

REF No.	PART No.	DESCRIPTION
C 863	043-0523-50	0.1 μF
C 864	042-9034-00	63V 47 μF
R 601	119-4721-15	4.7KΩ
R 602	119-4721-15	4.7KΩ
R 603	119-4721-15	4.7KΩ
R 604	119-4721-15	4.7KΩ
R 861	111-1831-98	1/4W 18KΩ
R 871	111-1521-98	1/4W 1.5KΩ
R 872	111-1521-98	1/4W 1.5KΩ
R 873	119-4721-15	4.7KΩ
R 874	119-4721-15	4.7KΩ
R 875	111-1031-98	1/4W 10KΩ
R 876	119-4731-15	47KΩ
R 878	119-4721-15	4.7KΩ
R 879	119-1021-15	1KΩ
R 880	119-2231-15	22KΩ
CN 107	074-0881-17	OUTLET SOCKET
CN 108	074-0881-06	OUTLET SOCKET
J 601	074-1214-01	16PIN

Tape mechanism Side PWB section (B4)

REF No.	PART No.	DESCRIPTION
C 1	175-3311-00	330pF CH
C 2	175-3311-00	330pF CH
C 3	175-3311-00	330pF CH
C 4	175-3311-00	330pF CH
C 5	183-4763-11	6.3V 47 μ F
C 6	042-0552-02	10V 68 μ F
C 7	042-0552-02	10V 68 μ F
C 8	173-1231-10	0.012 μ F J
C 9	173-1231-10	0.012 μ F J
C 10	183-4753-51	35V 4.7 μ F
C 11	183-1043-61	50V 0.1 μ F
C 12	175-5611-00	560pF CH

REF No.	PART No.	DESCRIPTION
C 13	183-4743-61	50V 0.47 μ F
C 14	183-2263-31	16V 22 μ F
C 15	183-4753-51	35V 4.7 μ F
C 16	183-4753-51	35V 4.7 μ F
IC 1	051-1546-10	BA3430S
J 1	074-0881-08	8P
R 1	111-1241-91	1/4WS 120K Ω
R 2	111-1241-91	1/4WS 120K Ω
R 3	111-1241-91	1/4WS 120K Ω
R 4	111-1241-91	1/4WS 120K Ω
R 5	116-1011-10	1/8W 100 Ω
R 6	116-1011-10	1/8W 100 Ω

REF No.	PART No.	DESCRIPTION
R 7	117-3341-10	1/10W 330K Ω
R 8	117-1131-10	1/10W 11K Ω
R 9	117-1531-10	1/10W 15K Ω
R 10	117-1531-10	1/10W 15K Ω
R 11	117-1131-10	1/10W 11K Ω
R 12	117-3341-10	1/10W 330K Ω
R 13	117-1811-10	1/10W 180 Ω
R 14	117-8211-10	1/10W 820 Ω
R 15	116-2231-10	1/8W 22K Ω
R 16	117-1031-10	1/10W 10K Ω
R 17	117-1031-10	1/10W 10K Ω

Tape mechanism Rear PWB section (B5)

REF No.	PART No.	DESCRIPTION
C 102	178-1042-78	0.1 μ F
C 103	163-4763-30	16V 47 μ F
C 107	163-1053-60	50V 1 μ F
C 108	163-1053-60	50V 1 μ F
C 109	163-4763-30	16V 47 μ F
C 110	163-2263-30	16V 22 μ F
C 111	043-0296-50	0.1 μ F
C 112	043-0296-50	0.1 μ F

REF No.	PART No.	DESCRIPTION
C 113	163-4753-50	35V 4.7 μ F
C 116	163-4763-30	16V 47 μ F
IC 101	051-5202-00	CCCAX1552M
IC 102	051-1014-05	TA7291F
P 101	076-0353-08	8P
Q 107	125-2004-03	RN1403
R 101	117-1831-10	1/10W 18K Ω
R 102	117-1031-10	1/10W 10K Ω

REF No.	PART No.	DESCRIPTION
R 103	117-2221-10	1/10W 2.2K Ω
R 105	117-1031-10	1/10W 10K Ω
R 106	117-1031-10	1/10W 10K Ω
R 107	116-2711-10	1/8WS 270 Ω
S 101	013-3906-00	STMR17
VR 101	012-4318-06	10K Ω VR
VR 102	012-4318-06	10K Ω VR

Tape mechanism Bottom PWB section (B6)

REF No.	PART No.	DESCRIPTION
REF301	051-1776-00	NJL5801K-C

REF No.	PART No.	DESCRIPTION
SW 301	013-3953-01	SPPB32

REF No.	PART No.	DESCRIPTION
SW 302	013-3951-00	HMW0605

■ ELECTRICAL PARTS LIST:

CD mechanism (B7) section

Note)Several different parts of the same reference number are alternative parts.
One of those parts is used in the set.

REF No.	PART No.	DESCRIPTION
C1	163-1073-10	6.3V 100 μF
C3	178-1042-78	0.1 μF
C4	178-2222-78	2200pF
C5	178-1042-78	0.1 μF
C6	178-1042-78	0.1 μF
C7	178-1042-78	0.1 μF
C8	176-1501-00	15pFCH
C9	176-1501-00	15pFCH
C10	176-1201-00	12pFCH
C11	178-1042-78	0.1 μF
C13	178-1042-78	0.1 μF
C14	178-1042-78	0.1 μF
C15	178-1042-78	0.1 μF
C16	178-1042-78	0.1 μF
C17	163-1073-31	16V 100 μF
C18	176-4701-00	47pFCH
C19	178-1532-78	0.015 μF
C20	178-1032-78	0.01 μF
C21	178-2722-78	2700pF
C22	178-4722-78	4700pF
C23	178-1042-78	0.1 μF
C24	178-1042-78	0.1 μF
C25	178-1042-78	0.1 μF
C26	178-4712-78	470pF
C27	178-4712-78	470pF
C28	178-4732-78	0.047 μF
C29	178-4732-78	0.047 μF
C30	178-4732-78	0.047 μF
C31	178-4732-78	0.047 μF
C32	163-4763-05	4V 47 μF
C33	163-4763-05	4V 47 μF
C34	176-1801-00	18pFCH
C35	176-6097-00	6pFCH

REF No.	PART No.	DESCRIPTION
C36	176-6801-00	68pFCH
C37	176-2201-00	22pFCH
C38	178-1042-78	0.1 μF
C39	163-4763-05	4V 47 μF
C44	178-2242-78	0.22 μF
C45	178-2242-78	0.22 μF
C46	163-4763-10	6.3V 47 μF
C47	178-8222-78	8200pF
C48	178-1042-78	0.1 μF
C50	163-1073-10	6.3V 100 μF
C51	178-1042-78	0.1 μF
C52	178-2232-78	0.022 μF
C54	176-2201-00	22pFCH
C61	178-1042-78	0.1 μF
C63	178-1042-78	0.1 μF
C64	178-1042-78	0.1 μF
C65	178-1042-78	0.1 μF
D4	001-0516-00	MA111
IC1	051-5704-00	TA2096FN
IC2	051-6342-00	TC9462F
IC3	051-6045-08	BA5984FP
J1	074-1138-66	16P
J2	074-1138-06	6P
L1	010-2155-93	10 μH
L3	010-2199-74	10 μH J
Q1	101-1188-50	2SB1188PQR
R1	117-2211-10	1/10W 220Ω
R2	117-2211-10	1/10W 220Ω
R3	117-5611-10	1/10W 560Ω
R4	117-5611-10	1/10W 560Ω
R5	117-4711-10	1/10W 470Ω
R6	117-3311-10	1/10W 330Ω
R7	117-4721-10	1/10W 4.7KΩ

REF No.	PART No.	DESCRIPTION
R8	117-1041-10	1/10W 100KΩ
R9	117-1031-10	1/10W 10KΩ
R10	117-4731-10	1/10W 47KΩ
R12	117-4741-10	1/10W 470KΩ
R13	117-3331-10	1/10W 33KΩ
R14	117-3321-10	1/10W 3.3KΩ
R15	117-1031-10	1/10W 10KΩ
R16	117-3321-10	1/10W 3.3KΩ
R17	117-3321-10	1/10W 3.3KΩ
R18	117-3321-10	1/10W 3.3KΩ
R19	117-3321-10	1/10W 3.3KΩ
R20	117-3321-10	1/10W 3.3KΩ
R21	117-2221-10	1/10W 2.2KΩ
R22	117-8211-10	1/10W 820KΩ
R23	117-9131-10	1/10W 91KΩ
R24	117-1041-10	1/10W 100KΩ
R25	117-1041-10	1/10W 100KΩ
R26	117-1841-10	1/10W 180KΩ
R27	117-1841-10	1/10W 180KΩ
R28	117-2211-10	1/10W 220Ω
R29	117-2201-10	1/10W 22Ω
R30	117-1041-10	1/10W 100KΩ
R31	117-1041-10	1/10W 100KΩ
R32	117-1041-10	1/10W 100KΩ
R33	117-1041-10	1/10W 100KΩ
R34	117-1041-10	1/10W 100KΩ
R35	117-2241-10	1/10W 220KΩ
R36	117-1041-10	1/10W 100KΩ
R37	117-1041-10	1/10W 100KΩ
R38	117-8231-10	1/10W 82KΩ
R39	117-1841-10	1/10W 180KΩ
X1	061-3500-90	16.920MHz

Sensor PWB (B8) section

REF No.	PART No.	DESCRIPTION
Q101	060-0252-01	PT4850F

REF No.	PART No.	DESCRIPTION
Q102	060-0252-01	PT4850F

REF No.	PART No.	DESCRIPTION
Q103	060-0252-01	PT4850F

Chucking SW PWB (B9) section

REF No.	PART No.	DESCRIPTION
S2	013-3879-01	SPPB12

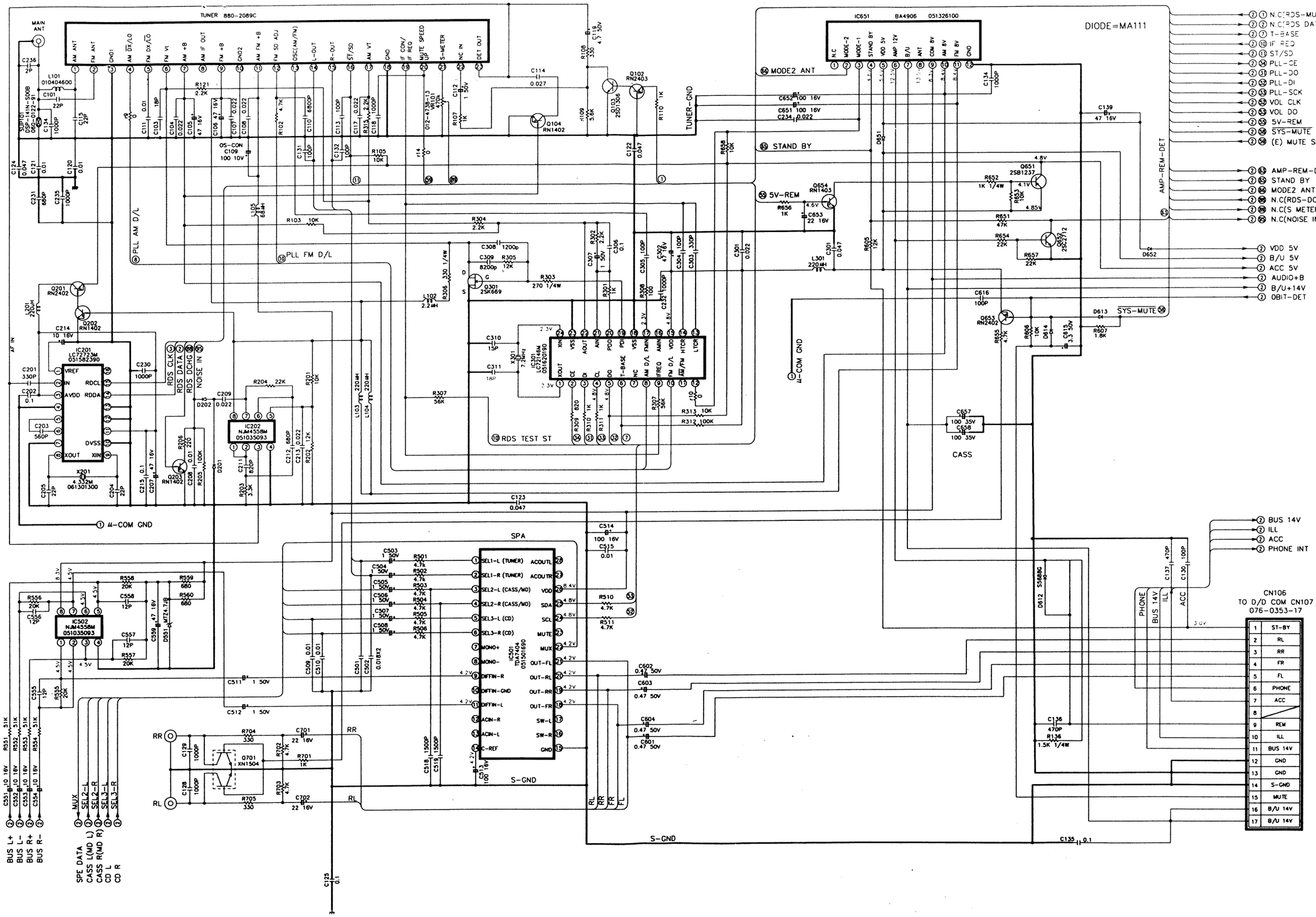
Limit SW PWB (B10) (Motor assy/SMA-151-100) section

REF No.	PART No.	DESCRIPTION
S1	013-7100-00	SPPB11

■ CIRCUIT DIAGRAM:

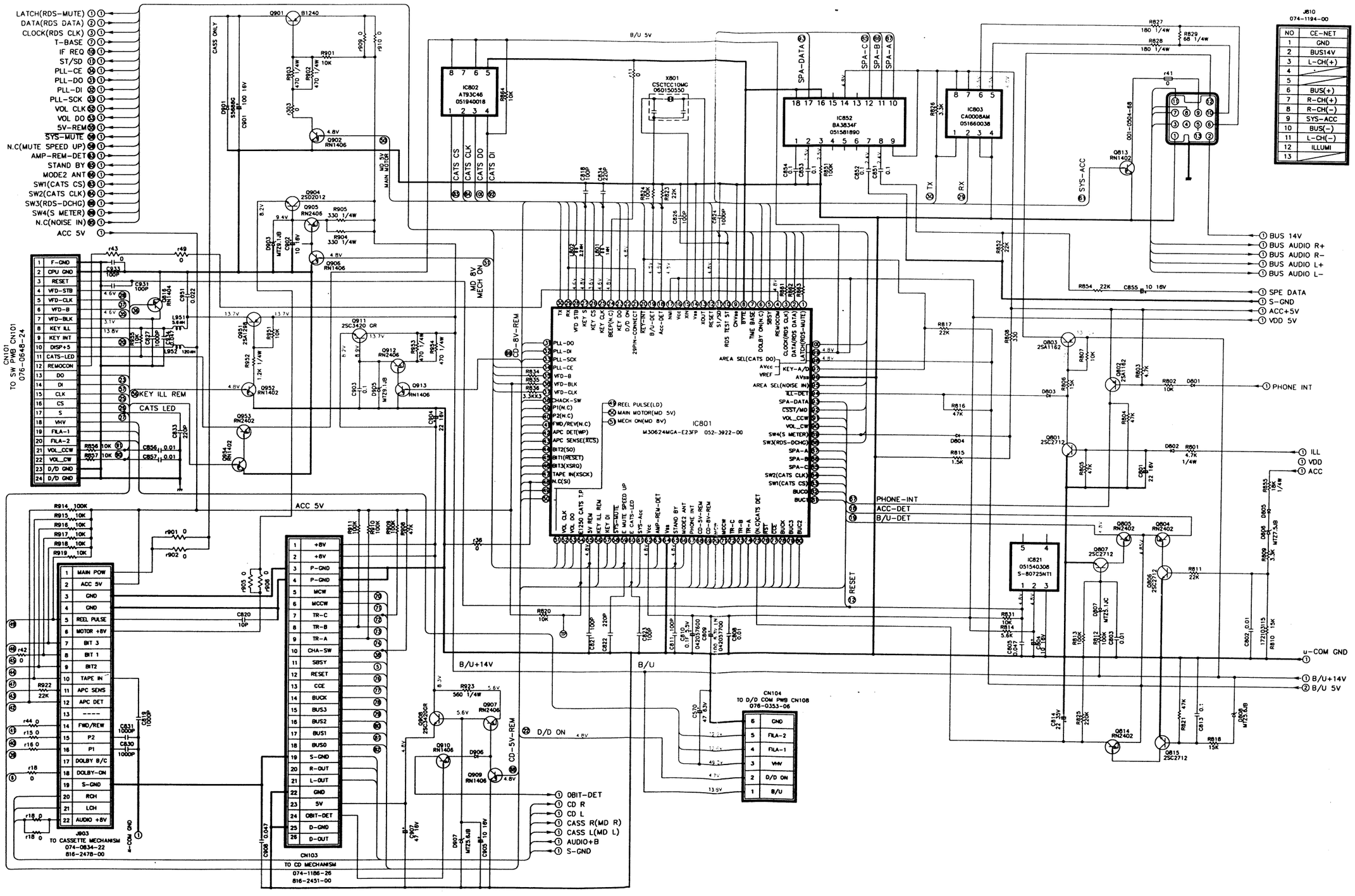
Main PWB (B1) section(1/2)

※ REF NO. with " r9.10.14(small letter)" means a jumper wire.

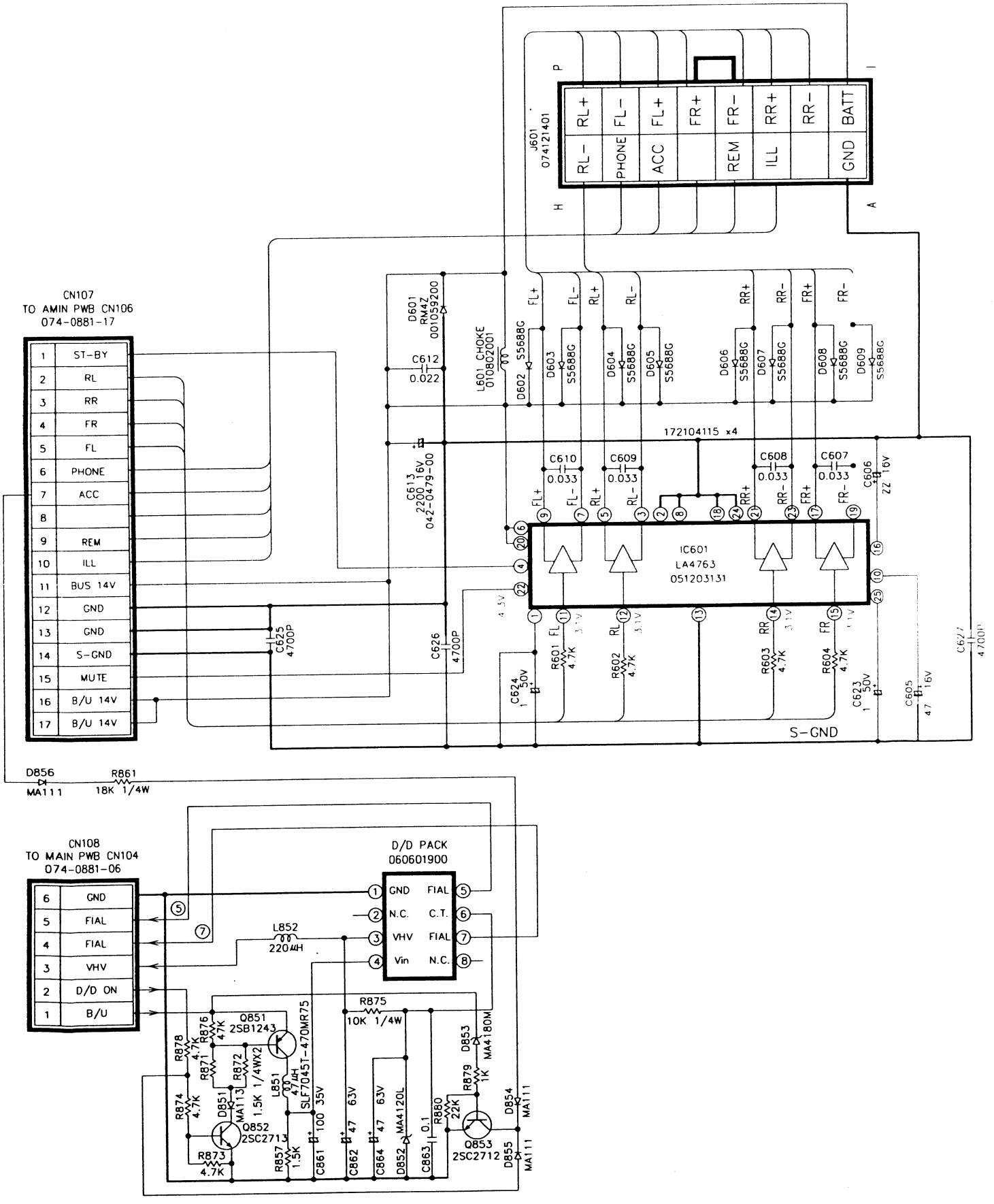


Main PWB (B1) section(2/2)

※ REF NO.with "r11.15.16.18.36.41.42.43.44.49.303.901.902.905
906.909.910(small letter)"means a jumper wire.



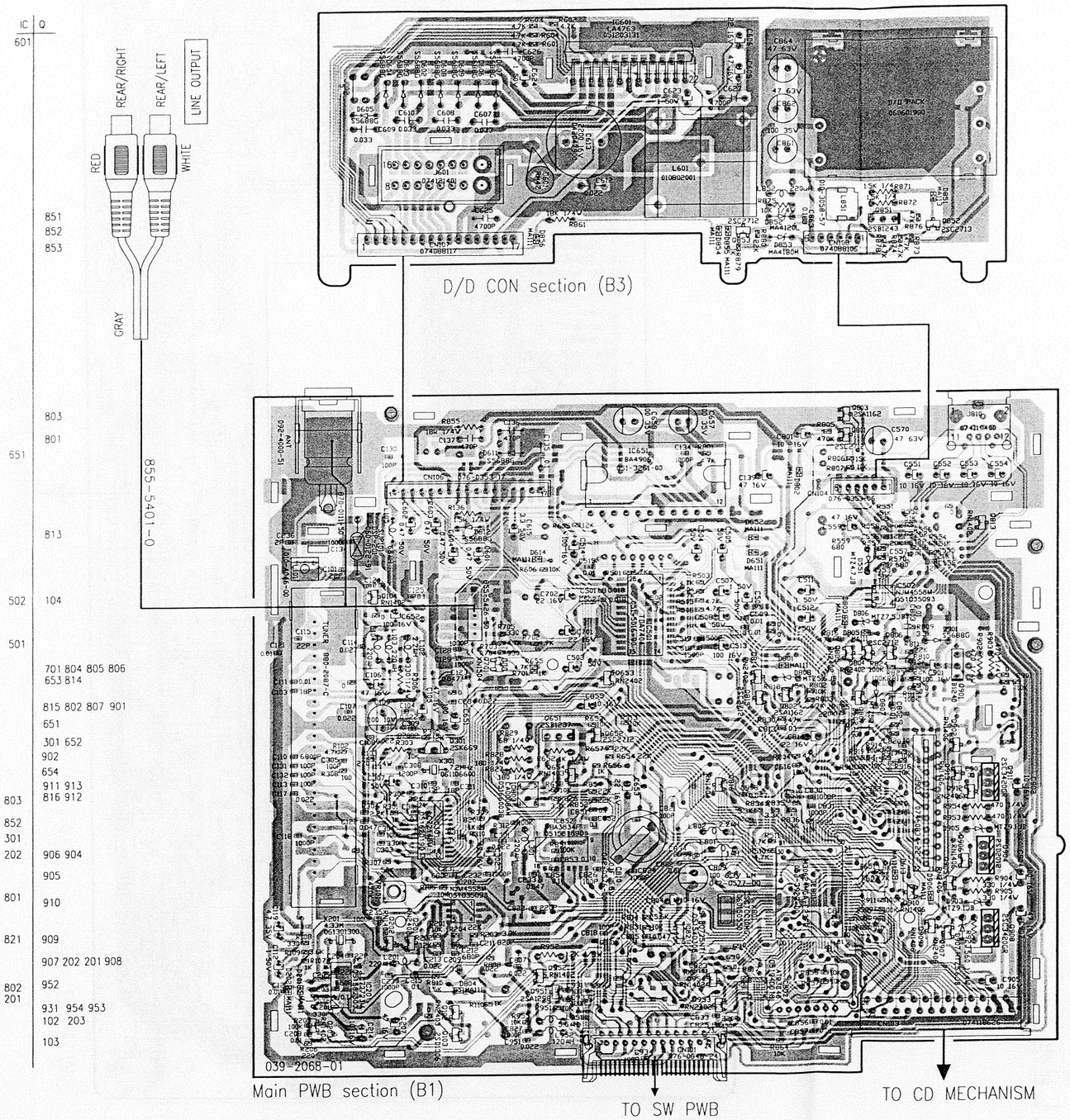
D/D CON PWB (B3) section



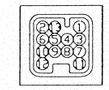
■ PRINTED WIRING BOARD:

Main PWB (B1) section

D/D CON PWB (B3) section

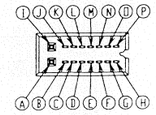


13P Ce-NET BUS LINE

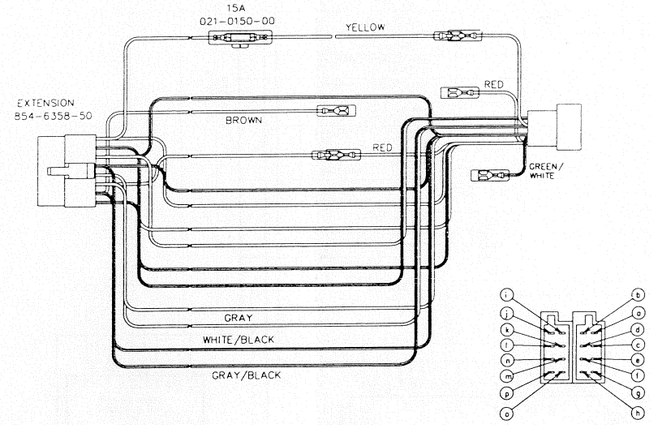


NO	CONNECTIONS
1	GND
2	BUS 14V
3	L-CH ⊕
4	
5	
6	BUS ⊕
7	R-CH ⊕
8	R-CH ⊖
9	SYS ACC
10	BUS ⊖
11	L-CH ⊖
12	ILLUMI ⊕
13	

16 PIN OUTLET SOCKET

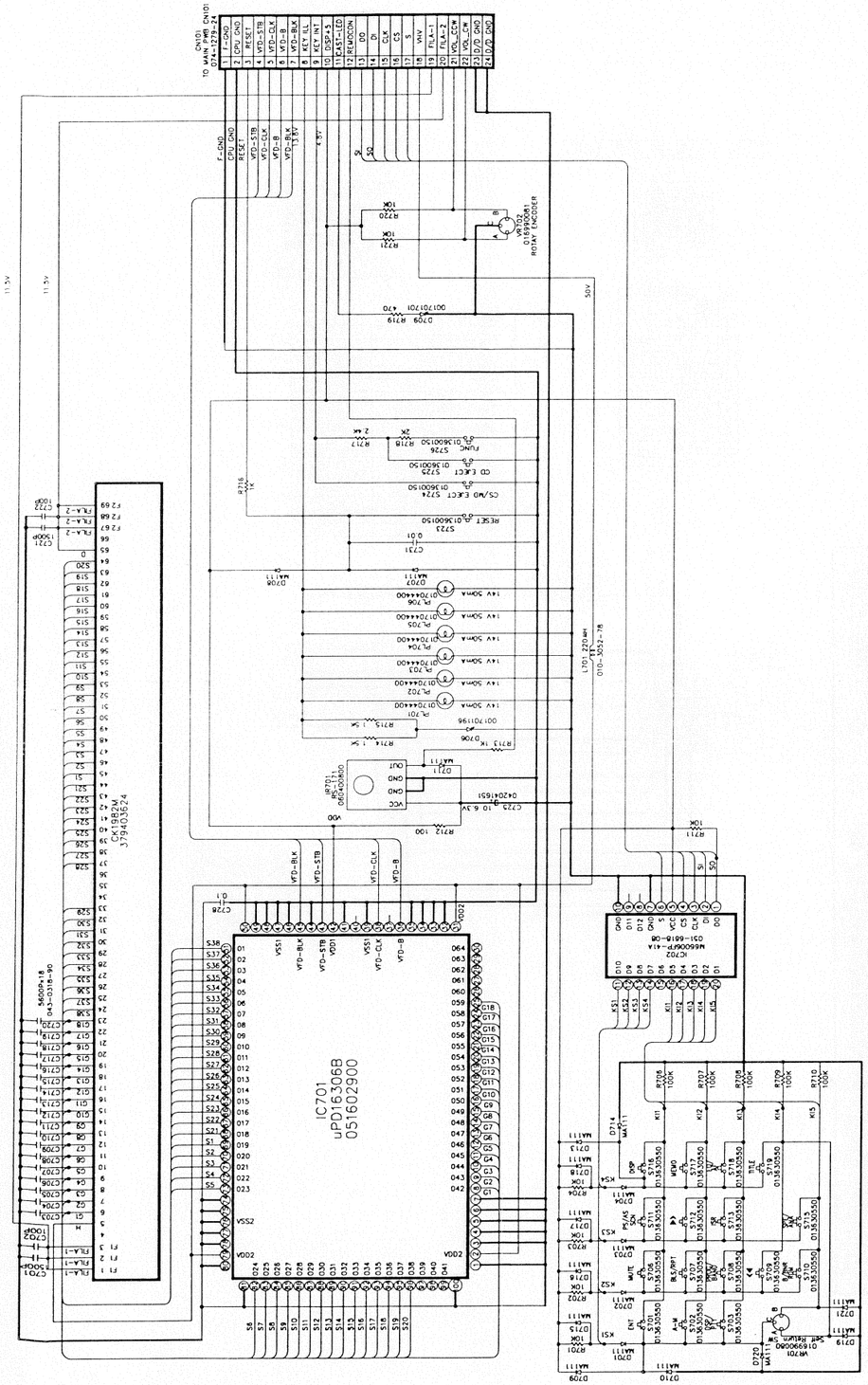


conn No.	NOTE	LINE COLOR
A-p	GND	BLACK
B		
C-n	ILLUMI	ORANGE/WHITE
D-m	REMOTE	BLUE/WHITE
E		
F-o	ACC	RED
G	PHONE INT	BROWN
H-h	SP R/L ⊖	GREEN/BLACK
I-i	BACK UP	YELLOW
J-b	SP R/R ⊖	PURPLE/BLACK
K-a	SP R/R ⊕	PURPLE
L-d	SP F/R ⊖	GRAY/BLACK
M-c	SP F/R ⊕	GRAY
N-e	SP F/L ⊕	WHITE
O-f	SP F/L ⊖	WHITE/BLACK
P-g	SP R/L ⊕	GREEN



CIRCUIT DIAGRAM:

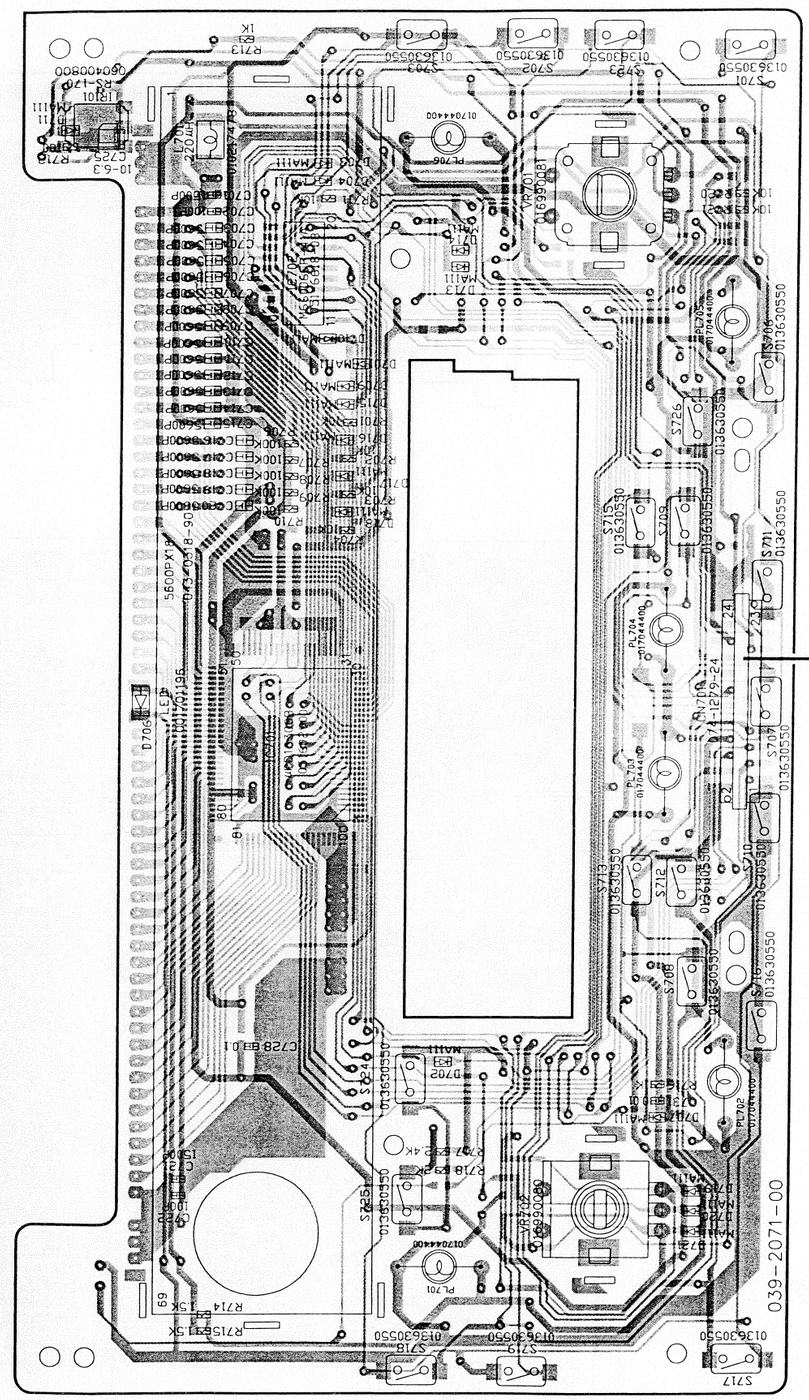
Switch PWB (B2) section



ADZ628R

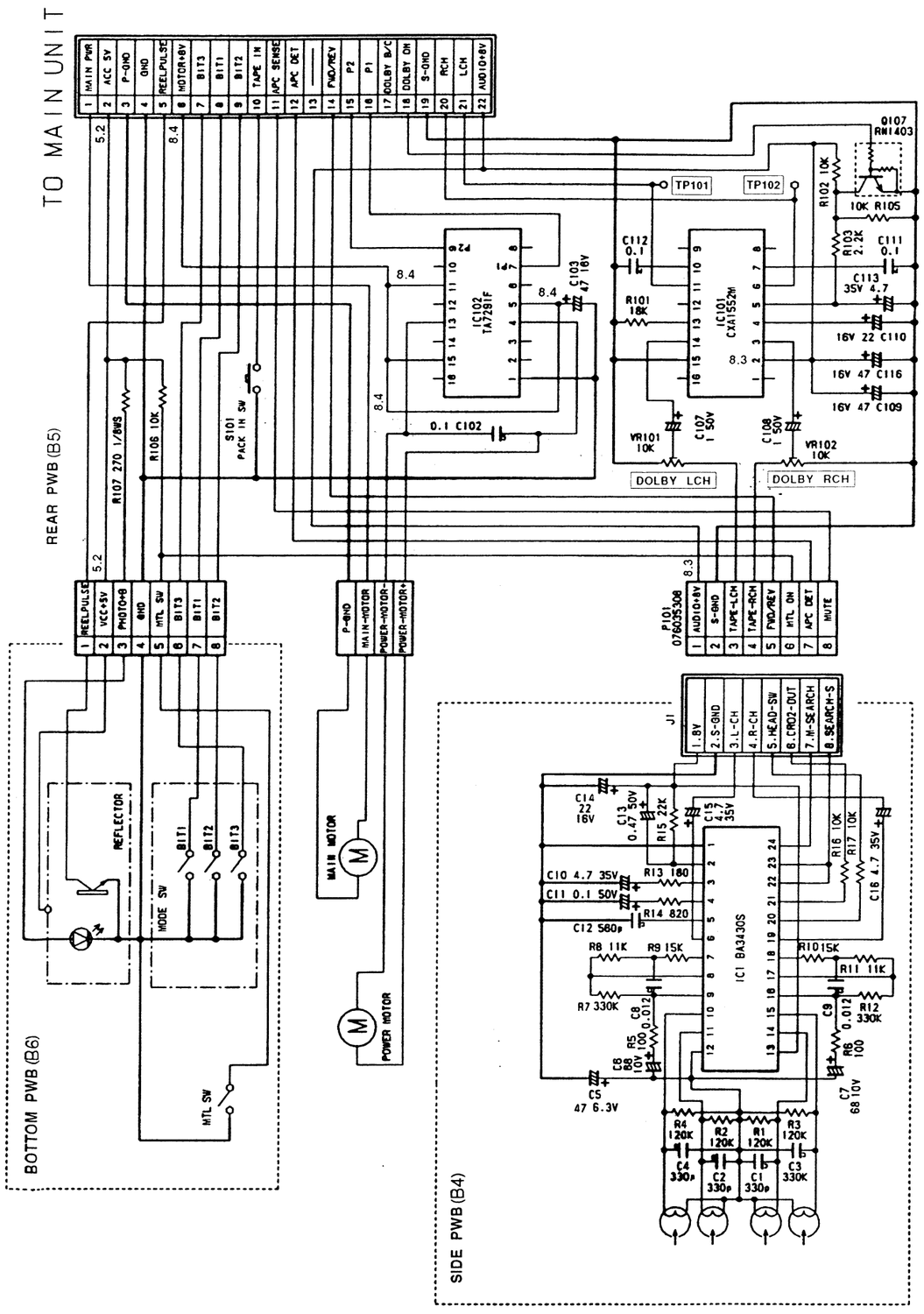
PRINTED WIRING BOARD:

Switch PWB (B2) section



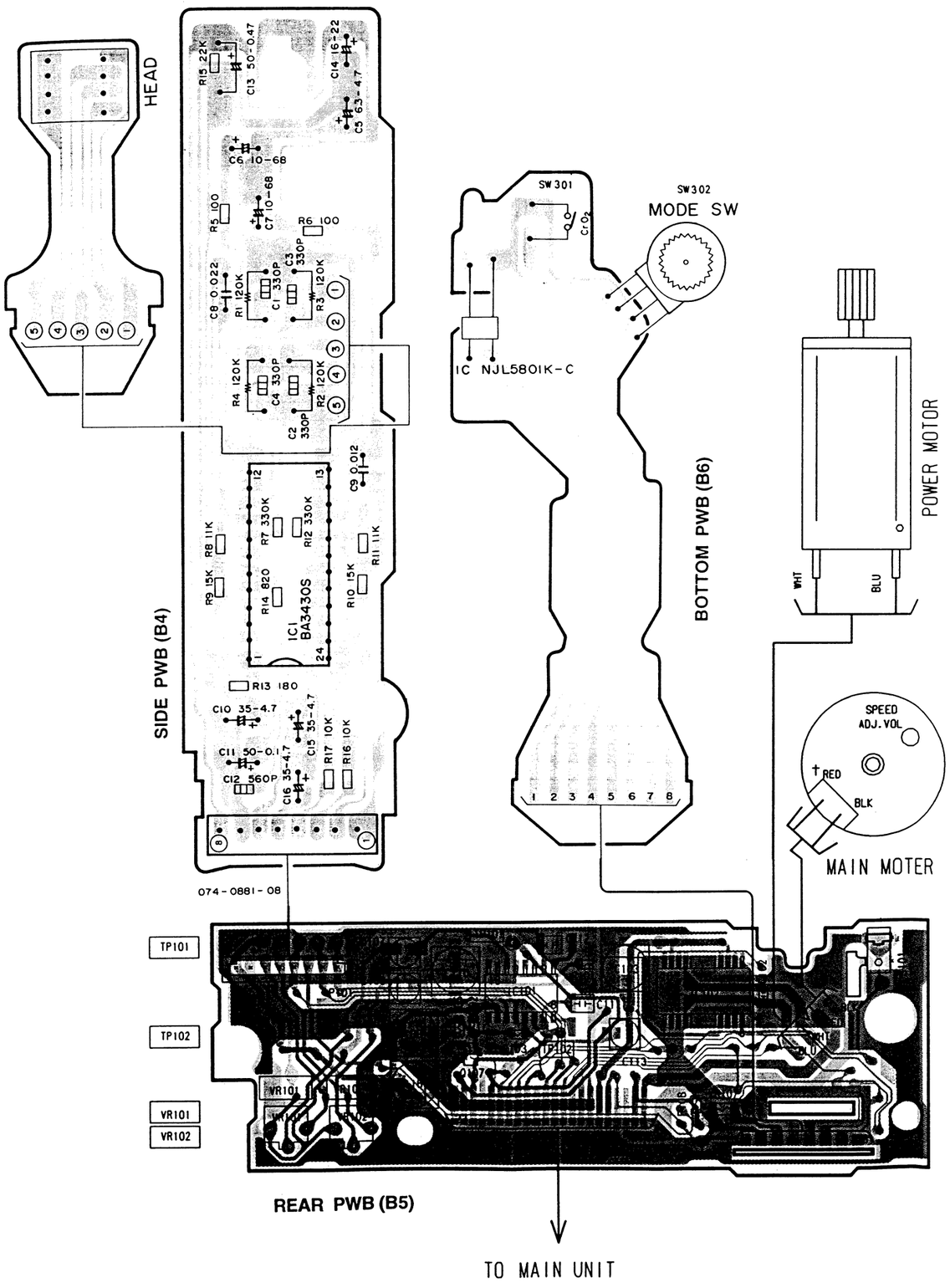
■ CIRCUIT DIAGRAM:

Tape mechanism section 930-0798-81



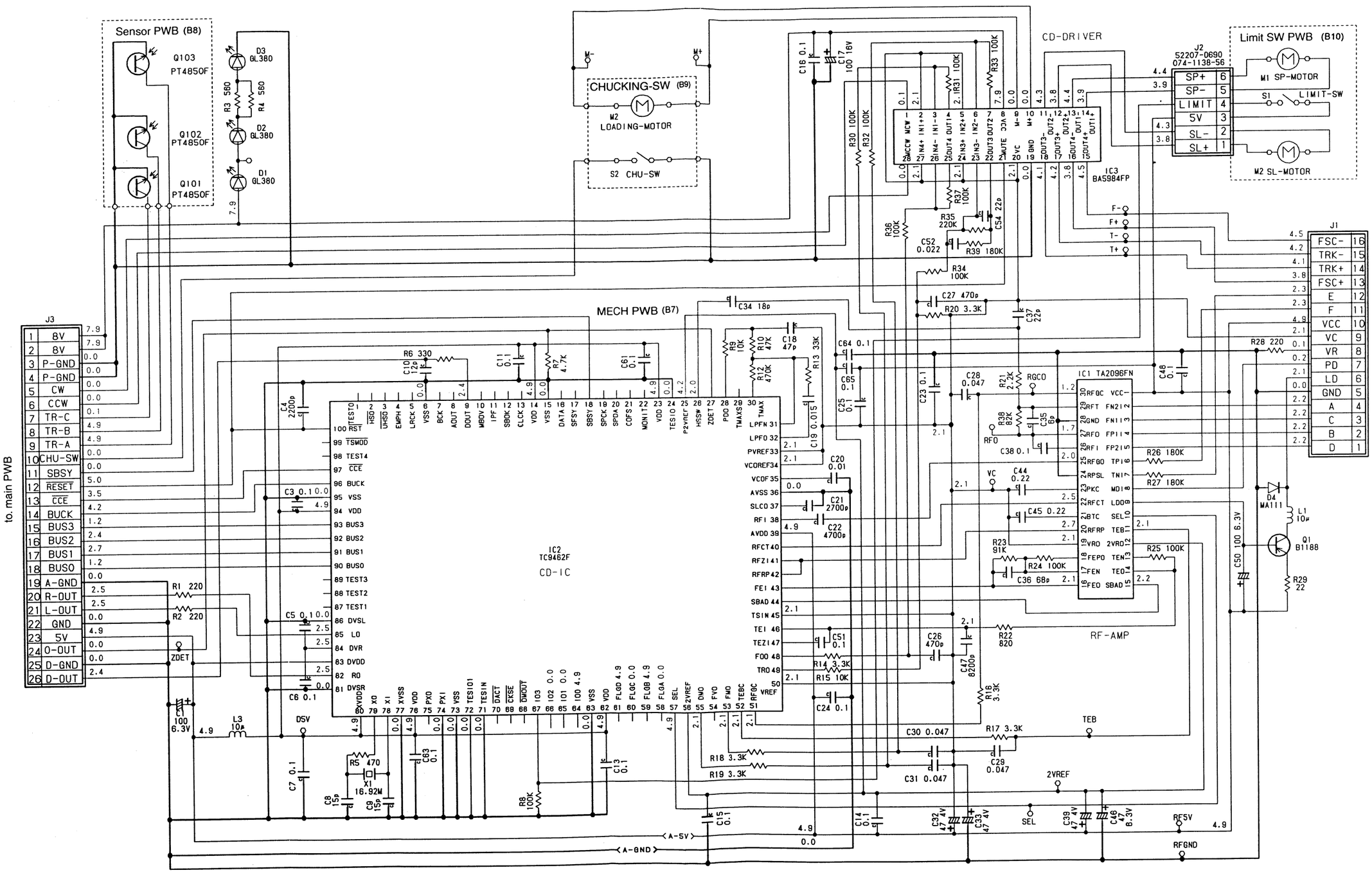
■ PRINTED WIRING BOARD:

Tape mechanism section: 930-0798-81



■ CIRCUIT DIAGRAM :

CD mechanism section 929-0092-82(BB-CD)



PRINTED WIRING BOARD :

CD mechanism section 929-0092-82(BB-CD)